

Bot.  
Serials  
QK1  
.P81

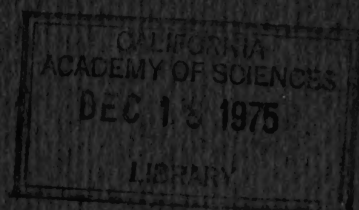
National Museum  
of Canada  
Ottawa 1975

National Museum  
of Natural Sciences

Publications  
in Botany, No. 5

## Checklist of the Mosses of Ontario

Robert R. Ireland and Roy F. Cain



Publications  
de Botanique, n° 5

Musées nationaux  
du Canada

Musée national  
des Sciences naturelles



**Checklist of the Mosses  
of Ontario**



*Rhodobryum ontariense*

# **Checklist of the Mosses of Ontario**

Robert R. Ireland and Roy F. Cain

National Museum of Natural Sciences  
Publications in Botany, No. 5

Published by the  
National Museums of Canada

Staff editor  
Frances Smith

©Crown copyrights reserved

National Museum of Natural Sciences  
National Museums of Canada  
Ottawa, Canada  
Third quarter 1975

Catalogue No. NM95-9/5

P0987654321  
Y798765

Printed in Canada

Musée national des Sciences naturelles  
Publications de Botanique, n° 5

Publié par les  
Musées nationaux du Canada

©Droits réservés au nom de la Couronne

Musée national des Sciences naturelles  
Musées nationaux du Canada  
Ottawa, Canada  
Troisième trimestre 1975

N° de catalogue NM95-9/5

T0987654321  
A798765

Imprimé au Canada

To the memory of Claire Williams





## **Contents**

---

List of Illustrations, 8

---

Summary, 9

---

Résumé, 9

---

Biographical Notes, 10

---

Acknowledgements, 11

---

Introduction, 13

---

Principal Collectors, 15

---

Systematic Arrangement, 17

---

Ontario Counties and Districts, 20

---

Checklist, 21

---

Literature Reports, 47

---

Synonyms and Excluded Taxa, 53

---

Literature Cited, 65

---

## List of Illustrations

### Frontispiece

*Rhodobryum ontariense*

### Map

Map of Ontario showing counties, districts, and natural-vegetation regions, 12

## **Summary**

This first checklist of Ontario mosses records 430 species and 34 varieties for the province. The list is based on verified herbarium specimens, and it summarizes the distribution of mosses within Ontario on a county or district basis. A list of mosses reported for the province, but not confirmed from herbarium specimens, and a list of synonyms and excluded taxa are also included. A map of Ontario, which appears on page 12, shows the counties, districts, and natural-vegetation regions within the province.

## **Résumé**

Cette première liste de contrôle des mousses de l'Ontario recense 430 espèces et 34 variétés sur le territoire de la province. La liste se fonde sur des spécimens d'herbier authentifiés et schématise la distribution de ces plantes par comté et par district sur l'ensemble du sol ontarien. L'ouvrage établit également une liste des espèces qu'on dit avoir observées dans la province, mais dont il n'existe aucun spécimen d'herbier, ainsi qu'une liste de synonymes et de taxa exclus. La carte de la province, paraissant sur la page 12, indique les comtés, les districts et les régions naturelles de végétation qu'on trouve en Ontario.

## Biographical Notes

### Robert R. Ireland

Robert R. Ireland graduated from the University of Kansas with a B.A. in 1956 and an M.A. in botany in 1957. After graduation he worked at the Smithsonian Institution as a herbarium aid in the Cryptogamic Division, and a year later became an assistant curator of bryophytes. In the summer of 1961 he received a National Science Foundation grant to study under Dr. A. J. Sharp at the University of Michigan Biological Station. The following year he became a research assistant to Dr. Elva Lawton at the University of Washington, where he assisted her with the *Moss Flora of the Pacific Northwest*, and received his Ph.D. in botany in 1966. He has since been curator of bryophytes at the National Museum of Natural Sciences, Ottawa. His main interests are moss systematics and phytogeography.

### Roy F. Cain

Roy F. Cain obtained his academic training from the University of Toronto. He received his B.A. in 1930, his M.A. in 1931, and his Ph.D. in 1933. Since then he has been on the staff of the Department of Botany, University of Toronto. At present he is professor and curator of the Cryptogamic Herbarium. He is associate chairman of the Department of Botany, and was acting chairman in 1959–61. His major interest has been the study of coprophilous ascomycetes. He developed an early interest in the bryophytes, and has collected extensively throughout Ontario. Dr. Cain has made collecting trips to the Yukon, the Northwest Territories, and all the Canadian provinces, as well as most of the states in the continental United States, and in Mexico, Venezuela, England, Switzerland, Kenya, Uganda, Tanzania, and Zaïre.

## Acknowledgements

We are grateful to the curators and staffs of the following institutions for allowing the senior author to study their collections and use their facilities: Farlow Herbarium (G. Sayre); New York Botanical Garden (C. T. Rogerson and G. L. Smith); and Smithsonian Institution (H. Robinson). We also wish to thank a number of individuals who have aided in the completion of this checklist: F. S. Cook, A. Crowder, H. A. Crum, M. I. Moore, and W. G. Stewart. The colour illustration of *Rhodobryum ontariense* was done by Anne Hanes and Ellen Ireland.



Map of Ontario showing counties, districts, and natural-vegetation regions

## Introduction

This is the first checklist of the mosses of Ontario. It not only summarizes our present knowledge of Ontario mosses, but also reveals the extent of collecting in the province. No pretence is made as to the completeness of the list, for much is still to be learned about the bryoflora of this large province. It is our hope that this checklist will stimulate more collecting within the province, especially in regions where little collecting has been done.

Ontario has a rather large and diverse moss flora, as one might expect from its enormous size and the existence of four natural-vegetation regions within the province (see Map). The present total of 430 species and 34 varieties of mosses should be increased as more herbarium specimens are examined and more collecting is done.

Differences in climatic, edaphic, biotic, and past geological factors in many parts of the province have been important in determining the moss flora, just as these same factors have influenced other organisms. Therefore, the mosses of the four natural-vegetation regions of Ontario—Boreal Forest, Deciduous (Carolinian) Forest, Great Lakes—St. Lawrence Forest, and Tundra—are just as characteristic of these regions as are the other plants and animals. Bryological exploration in any of these four regions should yield a number of new records. A brief account of the vascular plants and fauna of these natural-vegetation regions is given by Falls and Soper (1964) and by Scoggan (1966).

Five mosses are included in the checklist on the basis of single records. However, their presence in Ontario is doubtful and is probably the result of labelling errors. *Atrichum selwynii* Aust., *Drepanocladus uncinatus* var. *symmetricus* (Ren. & Card.) Grout, *Hypnum pallescens* var. *protuberans* (Brid.) Aust., *Kiaeria blyttii* (Schimp.) Broth., and *Tetraphis geniculata* Girg. ex Milde are included in the list from collections by John Macoun, but all are out of their known range. One other collection, *Dicranum groenlandicum* Brid., by Macoun from Carleton County, also seems to be an error, but its existence in Ontario is assured by a record from Kenora District.

Two of the species in the present list are endemic in Ontario, namely *Neomacounia nitida* (Lindb.) Irel. and *Tortula cainii* Crum & Anders. Both species are known from only a few localities in southern Ontario, but there is no reason to suspect that they will not be found elsewhere.

All mosses in the checklist are based on herbarium specimens examined and verified by the senior author. The entire bryophyte herbaria of the National Museums of Canada (CANM), the University of Toronto (TRTC), the U.S. National Herbarium (US), the New York Botanical Garden (NY), as well as the general bryophyte herbarium of Farlow (FH) have been searched for Ontario mosses. The list is based on single records from each county or district within the province. The mosses listed without a designated locality are known for the province from verified herbarium specimens, but they had insufficient locality data to place them in any county or district. The label data, as well as the herbarium where each specimen was seen, have been recorded and are kept on file in the National Herbarium of Canada (CANM) in Ottawa. Anyone may obtain information regarding these records by writing to the Curator of Bryophytes, National Museum of Natural Sciences, National Museums of Canada, Ottawa.

There has been no systematic attempt to confirm published records because of the high percentage of error existing in their identification. Taxonomic and nomenclatural changes have only added to the confusion, and so the bryologist must examine the specimens. Reported tropical mosses in Ontario, such as *Neckeropsis disticha* (Hedw.) Kindb. and *Papillaria nigrescens* (Hedw.) Jaeg. & Sauerb., justify this decision. Furthermore, the time and expense involved in tracking down literature records are often excessive in relation to the results that are obtainable. There are certain exceptions, however, especially in the case of a single record known from the province. It is hoped that specimens of any mosses not on the list will be sent to Ottawa for

verification, and a voucher specimen deposited in either the National Herbarium of Canada (CANM) or the University of Toronto (TRTC). The majority of Ontario records are now contained in these two institutions, and for the convenience of future researchers it is extremely desirable to keep the specimens within these two centres.

The nomenclature is basically that of Crum, Steere, and Anderson (1973), who generally followed Brotherus (1924–25), or of van der Wijk, Margadant, and Florschütz (1959–69), with recent additions by Ando (1973), Ireland (1974), Isoviita (1966), Koponen (1968, 1971, 1973), and Iwatsuki and Koponen (1972).



## Principal Collectors of Ontario Mosses

As it would take considerable space to list everyone who has collected mosses in Ontario, only those making numerous collections or those with the only record for a particular species or variety in Ontario are listed.

|                           |                 |                   |
|---------------------------|-----------------|-------------------|
| Ahti, T.                  | Fowler, J.      | Moore, M. I.      |
| Anderson, L. E.           | Garton, C. E.   | Moxley, E. A.     |
| Bailey, J. A.             | Gillett, J. M.  | Orloci, L.        |
| Baldwin, W. K. W.         | Grassl, C. O.   | Phipps, J. B.     |
| Barclay, P.               | Hainault, R.    | Roy, J. D.        |
| Bell, R.                  | Hand, C. H.     | Schofield, W. B.  |
| Bentley, P. A.            | Hermann, F. J.  | Sharp, A. J.      |
| Billings, B., Jr.         | Hosie, R. C.    | Shea, G.          |
| Brassard, G. R.           | Ireland, R. R.  | Soper, J. H.      |
| Brodo, I. M.              | James, L. E.    | Spreadborough, W. |
| Brown, H. H.              | Jaquith, B.     | Stewart, W. G.    |
| Cain, R. F.               | Jaquith, L. E.  | Walker, T. L.     |
| Catling, P. M.            | Jeglum, J. K.   | Wetmore, C. M.    |
| Cook, F. S.               | Judd, W. W.     | White, J.         |
| Crum, H. A.               | Kershaw, K. A.  | Whitehouse, E.    |
| Davidson, C. E.           | Kuwahara, Y.    | Williams, C. E.   |
| (also as Williams, C. E.) | Larsen, J. A.   | Williams, H.      |
| Davies, B. W.             | Losee, S. T. B. | Wilson, R. A.     |
| Dearness, J.              | Macoun, J.      | Wood, A. A.       |
| Drummond, T.              | Maycock, P. F.  |                   |
| Dutchak, D. M.            | Millman, T.     |                   |



## Systematic Arrangement of Ontario Mosses

Basically the system of Crum, Steere, and Anderson (1973), which is based on Brotherus (1924–25)

### Class Musci

#### Subclass SPHAGNIDAE

##### Order SPHAGNALES

1. Family **Sphagnaceae**  
*Sphagnum*

#### Subclass ANDREAEIDAE

##### Order ANDREAEALES

2. Family **Andreaeaceae**  
*Andreaea*

#### Subclass BRYIDAE

##### Order FISSIDENTALES

3. Family **Fissidentaceae**  
*Fissidens*

##### Order DICRANALES

4. Family **Ditrichaceae**  
*Pleuridium*  
*Ditrichum*  
*Saefania*  
*Ceratodon*  
*Distichium*

5. Family **Seligeriaceae**  
*Seligeria*  
*Blindia*

6. Family **Dicranaceae**  
*Bruchia*  
*Trematodon*  
*Dicranella*  
*Paraleucobryum*  
*Rhabdoweisia*  
*Cynodontium*  
*Dichodontium*  
*Dicranoweisia*  
*Oncophorus*  
*Kiaeria*  
*Dicranum*

7. Family **Leucobryaceae**  
*Leucobryum*

##### Order POTTIALES

8. Family **Encalyptaceae**  
*Encalypta*

9. Family **Pottiaceae**

*Astomum*  
*Weissia*  
*Gymnostomum*  
*Gyroweisia*  
*Eucladium*  
*Trichostomum*  
*Tortella*  
*Hyophila*  
*Didymodon*  
*Bryoerythrophyllum*  
*Barbula*  
*Acaulon*  
*Phascum*  
*Pottia*  
*Pterygoneurum*  
*Desmatodon*  
*Aloina*  
*Tortula*

##### Order GRIMMIALES

10. Family **Grimmiaceae**  
*Grimmia*  
*Rhacomitrium*

##### Order FUNARIALES

11. Family **Ephemeraceae**  
*Ephemerum*

12. Family **Funariaceae**  
*Physcomitrella*  
*Aphanorrhagma*  
*Physcomitrium*  
*Funaria*

13. Family **Splachnaceae**  
*Tetraplodon*  
*Splachnum*

##### Order SCHISTOSTEGALES

14. Family **Schistostegaceae**  
*Schistostega*

##### Order EUBRYALES

15. Family **Bryaceae**  
*Mielichhoferia*  
*Pohlia*  
*Leptobryum*  
*Bryum*  
*Rhodobryum*

16. Family **Mniaceae**

*Mnium*  
*Cinclidium*  
*Rhizomnium*  
*Plagiomnium*  
*Pseudobryum*

17. Family **Aulacomniaceae**

*Aulacomnium*

18. Family **Meesiaceae**

*Paludella*  
*Amblyodon*  
*Meesia*

19. Family **Catoscopiaceae**

*Catoscopium*

20. Family **Bartramiaceae**

*Plagiopus*  
*Bartramia*  
*Philonotis*

21. Family **Timmiaceae**

*Timmia*

Order ISOBRYALES

22. Family **Ptychomitriaceae**

*Ptychomitrium*

23. Family **Orthotrichaceae**

*Zygodon*  
*Amphidium*  
*Orthotrichum*  
*Ulota*  
*Drummondia*

24. Family **Fontinalaceae**

*Fontinalis*  
*Dichelyma*

25. Family **Climaciaceae**

*Climacium*

26. Family **Hedwigiaceae**

*Hedwigia*

27. Family **Cryphaeaceae**

*Forsstroemia*

28. Family **Leucodontaceae**

*Leucodon*

29. Family **Neckeraceae**

*Neckera*  
*Neomacounia*  
*Homalia*  
*Thamnobryum*

Order HYPNOBRYALES

30. Family **Theliaceae**

*Thelia*  
*Myurella*

31. Family **Fabroniaceae**

*Anacamptodon*  
*Myrinia*

32. Family **Leskeaceae**

*Lindbergia*  
*Leskea*  
*Leskeella*  
*Pseudoleskeella*  
*Pterigynandrum*

33. Family **Thuidiaceae**

*Heterocladium*  
*Haplohymenium*  
*Anomodon*  
*Haplocladium*  
*Rauiella*  
*Abietinella*  
*Thuidium*  
*Helodium*

34. Family **Amblystegiaceae**

*Cratoneuron*  
*Campyllum*  
*Leptodictyum*  
*Hygroamblystegium*  
*Sciaromium*  
*Amblystegium*  
*Platydictya*  
*Drepanocladus*  
*Hygrohypnum*  
*Calliergon*  
*Calliergonella*  
*Scorpidium*

35. Family **Brachytheciaceae**

*Tomenthypnum*  
*Isothecium*  
*Brachythecium*  
*Bryhnia*  
*Cirriphyllum*  
*Bryoandersonia*  
*Rhynchostegium*  
*Rhynchostegiella*  
*Eurhynchium*  
*Stokesiella*

36. Family **Entodontaceae**

*Orthothecium*

*Entodon*

*Pleurozium*

37. Family **Plagiotheciaceae**

*Plagiothecium*

38. Family **Sematophyllaceae**

*Brotherella*

39. Family **Hypnaceae**

*Platygyrium*

*Pylaisiella*

*Homomallium*

*Hypnum*

*Callicladium*

*Isopterygiopsis*

*Isopterygium*

*Taxiphyllum*

*Herzogiella*

*Ctenidium*

*Ptilium*

40. Family **Rhytidiaceae**

*Rhytidium*

*Rhytidiadelphus*

41. Family **Hylocomiaceae**

*Hylocomium*

Order BUXBAUMIALES

42. Family **Buxbaumiaceae**

*Buxbaumia*

43. Family **Diphysciaceae**

*Diphyscium*

Order TETRAPHIDALES

44. Family **Tetraphidaceae**

*Tetradontium*

*Tetraphis*

Order POLYTRICHALES

45. Family **Polytrichaceae**

*Atrichum*

*Pogonatum*

*Polytrichum*

## Ontario Counties and Districts

- |    |                          |    |                    |
|----|--------------------------|----|--------------------|
| 48 | Algoma Dist.             | 5  | Middlesex Co.      |
| 8  | Brant Co.                | 43 | Muskoka Dist.      |
| 25 | Bruce Co.                | 47 | Nipissing Dist.    |
| 40 | Carleton Co.             | 6  | Norfolk Co.        |
| 53 | Cochrane Dist.           | 23 | Northumberland Co. |
| 20 | Dufferin Co.             | 21 | Ontario Co.        |
| 35 | Dundas Co.               | 7  | Oxford Co.         |
| 22 | Durham Co.               | 44 | Parry Sound Dist.  |
| 4  | Elgin Co.                | 18 | Peel Co.           |
| 1  | Essex Co.                | 14 | Perth Co.          |
| 32 | Frontenac Co.            | 29 | Peterborough Co.   |
| 37 | Glengarry Co.            | 38 | Prescott Co.       |
| 34 | Grenville Co.            | 24 | Prince Edward Co.  |
| 26 | Grey Co.                 | 52 | Rainy River Dist.  |
| 9  | Haldimand Co.            | 45 | Renfrew Co.        |
| 42 | Haliburton Co.           | 39 | Russell Co.        |
| 15 | Halton Co.               | 27 | Simcoe Co.         |
| 30 | Hastings Co.             | 36 | Stormont Co.       |
| 16 | Huron Co.                | 49 | Sudbury Dist.      |
| 54 | Kenora Dist.             | 51 | Thunder Bay Dist.  |
| 2  | Kent Co.                 | 50 | Timiskaming Dist.  |
| 3  | Lambton Co.              | 28 | Victoria Co.       |
| 41 | Lanark Co.               | 13 | Waterloo Co.       |
| 33 | Leeds Co.                | 10 | Welland Co.        |
| 31 | Lennox and Addington Co. | 17 | Wellington Co.     |
| 11 | Lincoln Co.              | 12 | Wentworth Co.      |
| 46 | Manitoulin Dist.         | 19 | York Co.           |

# Checklist of Ontario Mosses

[illegible]

*Note:* The number in parentheses after each genus refers to the family to which the genus belongs (see Systematic Arrangement). Numbers 1 to 54 in the column headings represent either the county or the district in Ontario from which the specimen was collected (see list on p. 20).

[illegible]



[illegible]

[illegible]





[illegible]

[illegible]

[illegible]







[illegible]

[illegible]



|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |  |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| <i>spinulosum</i> B.S.G.                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>stellare</i> Hedw.                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>thomsonii</i> Schimp.                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Myrinia</i> (31)                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>pulvinata</i> (Wahlenb.) Schimp.            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Myurella</i> (30)                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>julacea</i> (Schwaegr.) B.S.G.              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>sibirica</i> (C. Müll.) Reim.               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Neckera</i> (29)                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>pennata</i> Hedw.                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| var. <i>tenera</i> C. Müll.                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Neomacounia</i> (29)                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>nitida</i> (Lindb.) Irel.                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Oncophorus</i> (6)                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>virens</i> (Hedw.) Brid.                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>wahlenbergii</i> Brid.                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Orthothecium</i> (36)                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>chryseum</i> (Schwaegr. ex Schultes) B.S.G. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>intricatum</i> (C.J. Hartm.) B.S.G.         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>Orthotrichum</i> (23)                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>anomalum</i> Hedw.                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>cupulatum</i> Brid.                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>obtusifolium</i> Brid.                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>ohioense</i> Sull. & Lesq. ex Aust.         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>pallens</i> Bruch ex Brid.                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>pumilum</i> Sw.                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <i>sordidum</i> Sull. & Lesq. ex Aust.         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |



[illegible]







[illegible]

[illegible]

[illegible]

[illegible]





[illegible]



## Literature Reports

The following mosses have been reported for Ontario, but either their taxonomic status is uncertain or no specimens have been seen that would allow us to confirm their presence in the province. The asterisk indicates the taxa that are not accepted or listed as occurring in North America by Crum, Steere, and Anderson (1973). In square brackets, after the name of the person(s) reporting the moss is the year of publication, followed by the page number on which the taxon occurs (see Literature Cited for the complete reference).

- Acaulon triquetrum* (Spruce) C. Müll. [Williams 1968:283]  
*Aloina rigida* (Hedw.) Limpr. [Macoun and Kindberg 1892:49 (as *Barbula rigida* Schultz)]
- \**Amblystegium juratzkanum* var. *serotinum* (Lindb.) Wijk & Marg. [Macoun 1890:151 (as *Hypnum* (*Amblystegium*) *porphyrrhizon* Lindb.)]
- \**Amblystegium tenuifolium* Kindb. [Kindberg 1890:65]
- \**Amblystegium varium* var. *oligorhizon* (B.S.G.) Lindb. [Moxley 1928:198]  
*Antitrichia curtipendula* (Hedw.) Brid. [Macoun and Kindberg 1892:165]  
*Aulacomnium palustre* var. *imbricatum* B.S.G. [Macoun and Kindberg 1892:145]
- \**Aulacomnium palustre* var. *polycephalum* (Brid.) Hüb. [Macoun and Kindberg 1892:145]
- \**Barbula convoluta* var. *obtusata* Kindb. in Mac. & Kindb. [Macoun and Kindberg 1892:265]  
*Barbula vinealis* Brid. [Macoun and Kindberg 1892:263]  
*Brachythecium biventrosus* (C. Müll.) Jaeg. & Sauerb. [Macoun 1902:290]  
*Brachythecium collinum* (Schleich. ex C. Müll.) B.S.G. [Macoun 1902:290 (as *B. hillebrandi* Lesq.)]  
*Brachythecium frigidum* (C. Müll.) Besch. [Moxley 1932:66 (as *B. asper-rimum* Mitt.)]
- \**Brachythecium harpidioides* C. Müll. & Kindb. in Mac. & Kindb. [Macoun 1902:288]  
*Brachythecium oxycladon* var. *dentatum* (Lesq. & James) Grout [Moxley 1928:198]  
*Brachythecium reflexum* var. *pacificum* Ren. & Card. ex Röhl [Moxley 1929:84 (as *B. bestii* Grout)]
- \**Brachythecium rivulare* var. *obtusulum* Kindb. in Mac. & Kindb. [Macoun and Kindberg 1892:201]  
*Brachythecium rutabulum* var. *flavescens* B.S.G. [Macoun and Kindberg 1892:195 (as *B. platycladum* C. Müll. & Kindb. in Mac. & Kindb.)]
- \**Brachythecium starkei* ssp. *oedipodium* (Mitt.) Ren. & Card. (as *B. curtum* (Lindb.) Limpr. in Crum, Steere, and Anderson 1973) [Mitten 1865:32 (as *Hypnum oedipodium* Mitt.)]
- \**Bryum alpiniforme* Kindb. in Mac. & Kindb. [Macoun and Kindberg 1892:271]
- \**Bryum angustirete* ssp. *parvulum* (Kindb.) Wijk & Marg. [Kindberg 1910:184 (as *B. pendulum* ssp. *nanum* Kindb.)]
- \**Bryum argenteum* var. *lanatum* (P. Beauv.) Hampe (as var. *argenteum* in Crum, Steere, and Anderson 1973) [Macoun and Kindberg 1892:128]
- \**Bryum bimum* var. *angustifolium* Kindb. in Mac. & Kindb. [Macoun and Kindberg 1892:123]
- \**Bryum capillare* var. *ferchelii* (Brid.) B.S.G. [Macoun 1902:254 (as *B. ferchelii* Funck)]  
*Bryum capillare* var. *torquescens* (Bruch ex De Not.) Husn. [Macoun 1902:251 (as *B. torquescens* Bruch & Schimp.)]
- \**Bryum gemmuligerum* Kindb. [Kindberg 1900:87]  
*Bryum klinggraeffii* Schimp. in Klinggr. [Crundwell and Nyholm 1964:612]  
*Bryum lonchocaulon* C. Müll. [Macoun 1902:248 (as *B. leucolomatium* C. Müll. & Kindb.)]

- Bryum ruderae* Crundw. & Nyh. [Crundwell and Nyholm 1963:95]  
*Bryum stenotrichum* C. Müll. [Crum 1966:110]  
*Bryum tortifolium* Funck ex Brid. [Watt 1869:359 (as *B. cyclophyllum* B.S.G.)]  
*Bryum turbinatum* (Hedw.) Turn. [Macoun and Kindberg 1892:133, 271 (as *B. erythrophyllum* Kindb.)]  
*Bryum violaceum* Crundw. & Nyh. [Crundwell and Nyholm 1963:94]  
*Buxbaumia viridis* (DC.) Moug. & Nestl. [Williams 1968:283 (as *B. indusiata* Brid.)]  
\**Calliergon cordifolium* var. *latifolium* Karcz. [Karczmarz 1971:61]  
\**Calliergon cordifolium* f. *laxum* (Röll) Podp. [Karczmarz 1971:55]  
\**Calliergon cuspidatum* f. *turgescens* (Wheldon) Karcz. [Karczmarz 1971:177]  
\**Calliergon giganteum* var. *hystricosum* Roth & Boch [Karczmarz 1971:86]  
\**Calliergon giganteum* var. *immersum* Ruthe ex Karcz. [Karczmarz 1971:89]  
\**Calliergon giganteum* f. *decurrens* (Mik.) Karcz. [Karczmarz 1971:84]  
\**Calliergon stramineum* var. *patens* (Lindb.) Roth [Karczmarz 1971:117]  
\**Calliergon turgescens* var. *patens* Karcz. [Karczmarz 1971:167]  
\**Campylium subdecursivulum* (Kindb. in Mac. & Kindb.) Kindb. [Macoun and Kindberg 1892:225 (as *Hypnum stellatum* var. *subdecursivulum* Kindb.)]  
*Campylopus flexuosus* (Hedw.) Brid. [Macoun 1890:149 (as *Dicranum palustre* La Pyl.)]  
*Cratoneuron commutatum* (Hedw.) Roth [Macoun and Kindberg 1892:232 (as *Hypnum commutatum* Hedw.)]  
\**Cratoneuron filicinum* var. *fallax* (Brid.) Roth [Moxley 1932:67 (as *Amblystegium fallax* Milde)]  
*Cryphaea glomerata* B.S.G. ex Sull. [Billings 1858:50]  
*Desmatodon heimii* (Hedw.) Mitt. [Grout 1936–39:205 (as *Pottia heimii* (Hedw.) Fühnr.)]  
*Dichelyma uncinatum* Mitt. [Grout 1928–34:260]  
*Dicranella palustris* (Dicks.) Crundw. ex Warb. [Macoun 1902:190 (as *D. squarrosa* Starke)]  
*Dicranella rufescens* (With.) Schimp. [Macoun and Kindberg 1892:22, 258]  
*Dicranella subulata* (Hedw.) Schimp. [Macoun 1902:191]  
*Dicranodontium denudatum* (Brid.) Britt. ex Williams [Anderson and Zander 1973:35]  
*Dicranum angustum* Lindb. [Wynne and Steere 1943:79 (as *D. laevidens* Williams)]  
*Dicranum fuscescens* var. *congestum* (Brid.) Husn. [Agassiz 1850:169 (as *D. congestum* Brid.)]  
\**Dicranum howellii* var. *trachyneuron* (Kindb.) Kindb. [Kindberg 1890:61 (as *D. drummondii* var. *trachyneuron* Kindb.)]  
*Dicranum tauricum* Sapeh. [Macoun and Kindberg 1892:24 (as *D. strictum* Schleich.)]  
\**Dicranum undulatum* ssp. *ontariense* Kindb. [Macoun 1902:202]  
*Discelium nudum* (Dicks.) Brid. [Steere 1958:186]  
*Distichium hagenii* Ryan ex Philib. [Wynne and Steere 1943:78]  
\**Ditrichum flexicaule* f. *brevifolium* (Kindb.) Grout [Grout 1936–39:46]  
\**Ditrichum pusillum* var. *tortile* (Schrad.) Hag. [Macoun 1902:208 (as *D. tortile* (Gmel.) Lindb.)]  
\**Drepanocladus aduncus* var. *aquaticus* (Sanio) Ren. [Moxley 1932:67]  
\**Drepanocladus aduncus* var. *intermedius* (Schimp.) Roth [Moxley 1932:67]  
\**Drepanocladus aduncus* var. *paternus* (Sanio) Jel. [Moxley 1929:84]  
\**Drepanocladus aduncus* var. *polycarpus* (Bland. ex Voit) Roth f. *gracilescens* (B.S.G.) Mönk. [Crum 1966:117]  
\**Drepanocladus capillifolius* f. *fallax* Ren. [Moxley 1932:68]

- Drepanocladus exannulatus* var. *rotae* (De Not.) Loeske (as *f. rotae* (De Not.) Mönk. in Crum, Steere, and Anderson 1973) [Macoun 1902:306 (as *Hypnum longinerve* Kindb.)]
- Drepanocladus fluitans* var. *uncatus* Crum, Steere, & Anders. [Persson and Sjörs 1960:260 (as *D. schulzei* (Limpr.) Loeske)]
- \**Drepanocladus jamesii-macounii* (Kindb.) Grout [Kindberg 1910:189 (as *Hypnum jamesii-macounii* Kindb.)]
- Drepanocladus lycopodioides* (Brid.) Warnst. [Graham 1913:155 (subfossil)]
- Drepanocladus procerus* (Ren. & H. Arnell ex Husn.) Warnst. [Persson and Sjörs 1960:258]
- \**Drepanocladus tundrae* (H. Arnell) Loeske (as *D. exannulatus* (B.S.G.) Warnst. in Crum, Steere, and Anderson 1973) [Tuomikoski 1949:21]
- Drepanocladus uncinatus* var. *plumosus* (Schimp.) Warnst. [Macoun and Kindberg 1892:229 (as *Hypnum uncinatum* var. *plumosum* Schimp.)]
- Encalypta affinis* Hedw. f. [Macoun and Kindberg 1892:94 (as *E. macounii* Aust.)]
- \**Encalypta ciliata* var. *pilifera* Amann [Flowers 1946:84]
- Encalypta vulgaris* Hedw. [Watt 1869:359]
- Entodon challengerii* (Par.) Card. [Macoun and Kindberg 1892:178 (as *E. compressum* (Hedw.) C. Müll.)]
- Entodon sullivantii* (C. Müll.) Lindb. [Macoun 1902:278]
- \**Eurhynchium pulchellum* var. *diversifolium* (B.S.G.) C. Jens. [Macoun and Kindberg 1892:205 (as *E. diversifolium* (Schimp.) Bruch & Schimp.)]
- \**Fissidens adiantoides* var. *brachyphyllus* Kindb. in Mac. & Kindb. [Macoun and Kindberg 1892:37]
- Fissidens garberi* Lesq. & James [Macoun 1902:204]
- \**Fissidens osmundoides* var. *obliquus* Kindb. [Kindberg 1909:42]
- Fissidens ravenelii* Sull. [Kindberg 1900:83]
- Fontinalis flaccida* Ren. & Card. [Welch 1960:191]
- Fontinalis sullivantii* Lindb. [Macoun and Kindberg 1892:159 (as *F. disticha* Hook. & Wils.)]
- \**Fontinalis squamosa* Hedw. [Macoun 1902:268]
- Grimmia donniana* Sm. [Wynne 1943:151 (as *G. doniana*)]
- Grimmia ovalis* (Hedw.) Lindb. [Macoun and Kindberg 1892:70 (as *G. ovata* Web. & Mohr)]
- \**Grimmia pseudorivularis* Kindb. [Macoun 1902:218]
- Haplocladium virginianum* (Brid.) Broth. [Macoun and Kindberg 1892:184 (as *Thuidium gracile* var. *lancastriense* Sull. & Lesq.)]
- \**Hedwigia ciliata* f. *secunda* (B.S.G.) Jones in Grout [Macoun and Kindberg 1892:78 (as *H. ciliata* var. *secunda* Schimp.)]
- \**Hedwigia ciliata* f. *viridis* (B.S.G.) Jones in Grout [Macoun and Kindberg 1892:78 (as *H. ciliata* var. *viridis* Schimp. and *H. ciliata* ssp. *subnuda* Kindb.)]
- \**Homalothecium lutescens* (Hedw.) Robins. [Watt 1869:359 (as *Hypnum lutescens* Hudson)]
- Homalothecium nevadense* (Lesq.) Ren. & Card. [Macoun 1888:186 (as *H. corticola*)]
- Hygrohypnum eumontanum* Crum, Steere, & Anders. [Macoun and Kindberg 1892:243 (as *Hypnum montanum* Wils.)]
- Hygrohypnum smithii* (Sw. ex Lilj.) Broth. [Macoun and Kindberg 1892:242 (as *Hypnum arcticum* Sommerf.)]
- Hygrohypnum subeugyrium* (Ren. & Card.) Broth. [Macoun 1902:310 (as *Hypnum subeugyrium* Ren. & Card.)]
- Hypnum bambergeri* Schimp. [Persson and Sjörs 1960:262]
- \**Hypnum cariosum* Roy in Aust. [Watt 1869:359 (as *H. cariosum* Sull.)]
- Hypnum cupressiforme* var. *subjulaceum* Mol. [Moxley 1932:70]

- Hypnum dieckii* Ren. & Card. ex Röhl [Macoun and Kindberg 1892:236 (as *H. canadense* Kindb.)]  
*Hypnum plicatum* (Lindb.) Jaeg. & Sauerb. [Persson and Sjörs 1960:262]  
*Hypnum subimponens* Lesq. [Macoun 1890:152]  
\**Hypnum subreptile* Par. [Macoun 1902:308 (as *H. reptiliforme* Kindb.)]  
\**Leptodictyum riparium* var. *longifolium* (Schultz) Warnst. [Moxley 1932:66]  
\**Leptodictyum riparium* f. *fluitans* (Lesq. & James) Grout [Macoun and Kindberg 1892:222 (as *Amblystegium riparium* var. *fluitans* Lesq. & James)]  
*Lescuraea patens* (Lindb.) H. Arnell & C. Jens. (as *Pseudoleskea patens* (Lindb.) Kindb. in Crum, Steere, and Anderson 1973) [Lesquereux and James 1884:319 (as *Hypnum atrovirens* Dicks.)]  
\**Leskea polycarpa* var. *paludosa* (Hedw.) Schimp. [Macoun 1902:272–73 (as *L. subobtusifolia* C. Müll. & Kindb.)]  
\**Leskeella nervosa* var. *flagellifera* (Kindb.) Wijk & Marg. [Kindberg 1890:63 (as *Leskea nervosa* var. *flagellifera* Kindb.)]  
*Leucodon brachypus* Brid. [Macoun and Kindberg 1892:164]  
\**Meesia uliginosa* var. *minor* (Brid.) Web. & Mohr (as var. *uliginosa* in Crum, Steere, and Anderson 1973) [Macoun and Kindberg 1892:109]  
\**Mnium lycopodioides* ssp. *inclinatum* (Lindb.) Wijk & Marg. [Barnes 1896:322 (as *M. inclinatum* Lindb.)]  
\**Neckera intermedia* Brid. [Agassiz 1850:170 (as *N. intermedia* Hedw.)]  
*Neckeropsis disticha* (Hedw.) Kindb. [Moxley 1932:70 (as *Neckera disticha* (Sw.) Hedw.)]  
\**Oncophorus wahlenbergii* var. *compactus* (B.S.G.) Braithw. [Macoun and Kindberg 1892:18 (as *Cynodontium wahlenbergii* var. *compactum* (B.S.G.) Mac. & Kindb.)]  
*Orthotrichum affine* Brid. [Sullivant 1856:634]  
*Orthotrichum alpestre* Hornsch. ex B.S.G. [Lesquereux and James 1884:169 (as *O. alpestre* var. *majus* Lesq. & James)]  
*Orthotrichum pusillum* Mitt. [Macoun and Kindberg 1892:91 (as *O. psilocarpum* James ex Sull.)]  
\**Orthotrichum rogeri* Brid. [Sullivant 1856:633]  
\**Orthotrichum strangulatum* f. *lescurii* (Aust.) Vitt [Watt 1869:359 (as *O. lescurii* Aust.)]  
*Orthotrichum striatum* Hedw. [Agassiz 1850:169 (as *O. leiocarpum* Bruch & Schimp.)]  
*Orthotrichum tenellum* Bruch ex Brid. [Macoun and Kindberg 1892:90]  
\**Orthotrichum urnigerum* ssp. *venturii* (De Not.) C. Jens. [Macoun 1902:233 (as *O. venturi* Kindb.)]  
*Papillaria nigrescens* (Hedw.) Jaeg. & Sauerb. [Mitten 1865:45 (as *Trachypus nigrescens* (Neckera) Sw.)]  
\**Paraleucobryum longifolium* ssp. *serratum* (Kindb.) Podp. [Macoun 1902:193 (as *Dicranum serratum* Kindb.)]  
*Paraleucobryum longifolium* var. *subalpinum* (Milde) Cas.-Gil. [Macoun 1902:200 (as *Dicranum longifolium* var. *subalpinum* Milde)]  
*Philonotis fontana* var. *pumila* (Turn.) Brid. [Macoun 1902:242]  
*Physcomitrium hookeri* Hampe [Grout 1933–40:77]  
\**Plagiomnium elatum* (B.S.G.) Kop. [Kindberg 1910:183 (as *Mnium seligeri* Jur. & Milde)]  
*Plagiomnium medium* ssp. *curvatulum* (Lindb.) Kop. (as *Mnium medium* var. *integrifolium* Lindb. in Crum, Steere, and Anderson 1973) [Kindberg 1910:184 (as *Mnium medium* ssp. *boreale* Kindb.)]  
\**Plagiothecium platyphyllum* Mönk. [Tuomikoski, Koponen, and Ahti 1973:250]  
*Platydictya minutissimum* (Sull. & Lesq. ex Sull.) Crum [Watt 1869:359 (as *Hypnum minutissimum* Sull. & Lesq.)]

- Pogonatum brachyphyllum* (Michx.) P. Beauv. [Anderson 1971:108]  
*Pohlia annotina* (Hedw.) Lindb. [Macoun and Kindberg 1892:116  
(as *Webera annotina* Schwaegr.)]  
*Pohlia atropurpurea* (Wahlenb.) H. Lindb. [Macoun and Kindberg 1892:125  
(as *Bryum atropurpureum* Wahlenb.)]  
*Pohlia drummondii* (C. Müll.) Andr. [Moxley 1932:65 (as *P. commutata*  
Lindb.)]  
*Pohlia ludwigii* (Spreng. ex Schwaegr.) Broth. [Moxley 1937:90]  
*Pohlia vexans* (Limpr.) H. Lindb. [Persson and Sjörs 1960:263]  
*Pseudoleskeella catenulata* (Brid. ex Schrad.) Kindb. [Moxley 1930:24  
(as *Pseudoleskea catenulata* B. & S.)]  
*Pterigynandrum filiforme* var. *minus* Lesq. & James (as var. *filiforme* in Crum,  
Steere, and Anderson 1973) [Graham 1913:154]  
*Pterogonium gracile* (Hedw.) Sm. [Grout 1928–34:219]  
\**Pylaisia polyantha* var. *rupestris* Best ex Mac. [Macoun 1902:276]  
\**Rhabdoweisia fugax* (Hedw.) B.S.G. [Lesquereux and James 1884:59]  
\**Rhacomitrium heterostichum* var. *obtusum* (Brid.) Delogne [Macoun and  
Kindberg 1892:74 (as *R. obtusum* (Sm.) Lindb.)]  
*Rhizomnium andrewsianum* (Steere) Kop. (as *Mnium andrewsianum* Steere  
in Crum, Steere, and Anderson 1973) [Persson and Sjörs 1960:262  
(as *Mnium andrewsianum* Steere)]  
\**Rhynchostegium aneuron* Kindb. [Kindberg 1890:64]  
\**Rhynchostegium serrulatum* ssp. *erienne* (Kindb.) Kindb. [Macoun 1902:297]  
*Rhytidiadelphus loreus* (Hedw.) Warnst. [Grout 1928–34:117]  
*Scleropodium cespitosum* (C. Müll.) L. Koch [Macoun 1902:292  
(as *S. colpophyllum* (Sull.) Grout)]  
\**Seligeria paucifolia* (Dicks.) Carruth. [Moxley 1930:24]  
*Seligeria pusilla* (Hedw.) B.S.G. [Grout 1936–39:50]  
*Sphagnum annulatum* H. Lindb. ex Warnst. [Maass 1967:204]  
*Sphagnum balticum* (Russ.) Russ. ex C. Jens. [Persson and Sjörs 1960:254]  
\**Sphagnum compactum* var. *brachycladum* (Röll) Röll [Macoun and Kind-  
berg 1892:7 (as *S. compactum* var. *subsquarrosus* Warnst.)]  
\**Sphagnum cuspidatum* var. *plumosum* Nees & Hornsch. [Macoun and  
Kindberg 1892:254]  
\**Sphagnum cuspidatum* var. *submersum* Schimp. [Macoun 1897:131]  
\**Sphagnum fimbriatum* var. *tenue* Grav. ex Röll [Macoun and Kindberg  
1892:1]  
\**Sphagnum flexuosum* Dozy & Molk. (as *S. recurvum* P. Beauv. in Crum,  
Steere, and Anderson 1973) [Macoun and Kindberg 1892:5 (as *S. recurvum*  
var. *amblyphyllum* Russ.)]  
\**Sphagnum fuscum* f. *fuscescens* (Warnst.) Warnst. [Macoun and Kindberg  
1892:2 (as *S. fuscum* var. *fuscescens* Warnst.)]  
\**Sphagnum fuscum* f. *pallescentes* (Warnst.) Warnst. [Macoun and Kindberg  
1892:3 (as *S. fuscum* var. *pallescentes* Warnst.)]  
\**Sphagnum fuscum* f. *viride* (Warnst.) Podp. [Macoun 1902:182  
(as *S. fuscum* var. *viride* Warnst.)]  
\**Sphagnum girgensohnii* var. *gracilescens* Grav. ex Warnst. f. *squarrosa*  
Warnst. [Macoun 1902:181]  
\**Sphagnum girgensohnii* var. *hygrophyllum* Russ. [Macoun and Kindberg  
1892:2 (as *S. girgensohnii* var. *hygrophilum* Warnst.)]  
\**Sphagnum girgensohnii* var. *strictum* (Lindb.) Russ. [Macoun 1902:181  
(as *S. girgensohnii* var. *stachyodes* Warnst.)]  
*Sphagnum imbricatum* Hornsch. ex Russ. [Watt 1869:359 (as *S. austinii*  
Sull.)]  
\**Sphagnum magellanicum* var. *pallescentes* (Warnst.) C. Jens. [Macoun and  
Kindberg 1892:9 (as *S. medium* var. *pallescentes* Warnst.)]

- \**Sphagnum magellanicum* var. *purpurascens* (Russ.) Warnst. [Macoun and Kindberg 1892:9 (as *S. medium* var. *laeve* f. *purpurascens* Russ.)]
- \**Sphagnum nemoreum* var. *alpinum* (Milde) Wijk & Marg. [Macoun and Kindberg 1892:4 (as *S. acutifolium* var. *pallens* Warnst.)]
- \**Sphagnum nemoreum* var. *elegans* (Braithw.) Wijk & Marg. [Macoun and Kindberg 1892:4 (as *S. acutifolium* var. *rubrum* Warnst.)]
- \**Sphagnum nemoreum* f. *versicolor* (Warnst.) Podp. [Macoun and Kindberg 1892:4 (as *S. acutifolium* var. *versicolor* Warnst.)]
- Sphagnum obtusum* Warnst. [Macoun 1902:183]
- \**Sphagnum obtusum* var. *fluitans* Warnst. [Warnstorf 1911:203]
- \**Sphagnum papillosum* var. *laeve* Warnst. [Macoun and Kindberg 1892:9]
- Sphagnum platyphyllum* (Lindb. ex Braithw.) Sull. ex Warnst. [Persson and Sjörs 1960:254]
- Sphagnum riparium* Ångstr. [Persson and Sjörs 1960:255]
- \**Sphagnum rubellum* var. *rubrum* (Grav.) Horr. [Macoun 1902:182 (as *S. tenellum* var. *rubrum* Warnst.)]
- \**Sphagnum russowii* var. *girgensohnii* Russ. ex Warnst. [Macoun 1902:181]
- \**Sphagnum russowii* var. *poecilum* Russ. ex Warnst. [Macoun 1902:181]
- \**Sphagnum squarrosum* var. *immersum* Beck ex Warnst. [Macoun and Kindberg 1892:6 (as *S. squarrosum* var. *spectabile* Russ.)]
- Sphagnum subsecundum* var. *contortum* (Schultz) Hüb. [Watt 1869:359 (as *S. laricinum* Spruce)]
- Sphagnum tenellum* Ehrh. ex Hoffm. [Persson and Sjörs 1960:255]
- \**Sphagnum warnstorffii* var. *viride* Russ. ex Warnst. [Macoun 1902:182]
- \**Sphagnum wulfianum* var. *squarulosum* Russ. [Macoun and Kindberg 1892:7 (as *S. wulfianum* var. *viride* Warnst.)]
- Stereophyllum leucostegum* (Brid.) Mitt. [Macoun 1890:151 (as *Hypnum* (*Brachythecium*) *donnellii* (?) Aust.)]
- \**Tetraphis pellucida* f. *cuspidata* (Kindb.) Grout [Grout 1936–39:6]
- \**Thuidium scitum* var. *lonchoneuron* Kindb. in Mac. & Kindb. [Macoun and Kindberg 1892:184]
- \**Thuidium tamariscinum* (Hedw.) B.S.G. [Agassiz 1850:170 (as *Hypnum tamariscinum* Hedw.)]
- Tomenthypnum nitens* var. *falcifolium* (Ren. ex Nichols) Podp. [Persson and Sjörs 1960:264]
- Tortula subulata* Hedw. [Macoun and Kindberg 1892:58 (as *Barbula angustata* Wils.)]
- Trichodon cylindricus* (Hedw.) Schimp. [Lesquereux and James 1884:93]
- \**Ulota crispula* Bruch ex Brid. [Macoun and Kindberg 1892:84]
- Ulota hutchinsiae* var. *rufescens* (Britt.) Dix. [Britton 1894:70 (as *Weissia americana rufescens* Britt.)]
- Weissia controversa* var. *wolfii* (Lesq. & James) Crum, Steere, & Anders. [Kindberg 1910:191 (as *W. wolfii* Lesq. & James)]
- \**Weissia rutilans* (Hedw.) Lindb. [Macoun 1906:177]
- \**Weissia rutilans* var. *ganderi* (Jur.) Mac. [Macoun 1902:187]

## Synonyms and Excluded Taxa

*Acaulon rufescens* Jaeg. & Sauerb. = *A. muticum* var. *rufescens*  
*Amblystegiella adnata* (Hedw.) Nichols = *Homomallium adnatum*  
*Amblystegiella confervoides* (Brid.) Loeske = *Platydictya confervoides*  
*Amblystegiella jungermannioides* (Brid.) Giac. = *Platydictya jungermannioides*  
*Amblystegiella sprucei* (Bruch) Loeske = *Platydictya jungermannioides*  
*Amblystegiella subtilis* (Hedw.) Loeske = *Platydictya subtile*  
*Amblystegium adnatum* (Hedw.) Aust. = *Homomallium adnatum*  
*Amblystegium americanum* Grout = *Rhynchostegiella compacta*  
*Amblystegium compactum* (C. Müll.) Aust. = *Rhynchostegiella compacta*  
*Amblystegium confervoides* (Brid.) B.S.G. = *Platydictya confervoides*  
*Amblystegium curvipes* B.S.G. = *Leptodictyum trichopodium* var. *curvipes*  
 (B.S.G.) Broth. — Excluded from Ontario  
*Amblystegium dissitifolium* Kindb. in Mac. & Kindb. = *Rhynchostegiella compacta*  
*Amblystegium filicinum* (Hedw.) De Not. = *Cratoneuron filicinum*  
*Amblystegium filicinum* f. *marianopolitana* Dupret ex Moxley =  
*Hygroamblystegium tenax*  
*Amblystegium fluviatile* (Hedw.) B.S.G. = *Hygroamblystegium fluviatile*  
*Amblystegium irriguum* (Hook. & Wils.) B.S.G. = *Hygroamblystegium tenax*  
*Amblystegium irriguum* var. *spinifolium* Schimp. = *Hygroamblystegium tenax*  
*Amblystegium irriguum* f. *marianopolitana* Dupret = *Hygroamblystegium tenax*  
*Amblystegium kochii* B.S.G. = *Leptodictyum trichopodium* var. *kochii*  
*Amblystegium lescurii* (Sull.) Aust. = *Sciaromium lescurii*  
*Amblystegium noterophilum* (Sull. & Lesq.) Holz. = *Hygroamblystegium noterophilum*  
*Amblystegium orthocladon* (P. Beauv.) Lesq. & James = *Hygroamblystegium tenax*  
*Amblystegium pseudoconfervoides* Kindb. = *Platydictya confervoides*  
*Amblystegium riparium* (Hedw.) B.S.G. = *Leptodictyum riparium*  
*Amblystegium saxatile* Schimp. = *Campylium radicale*  
*Amblystegium sprucei* (Bruch) B.S.G. = *Platydictya jungermannioides*  
*Amblystegium subcompactum* C. Müll. & Kindb. in Mac. & Kindb. =  
*Rhynchostegiella compacta*  
*Amblystegium subtile* (Hedw.) B.S.G. = *Platydictya subtile*  
*Amblystegium vacillans* Sull. = *Leptodictyum vacillans*  
*Amblystegium yuratzkae* Schimp. ex Mac. & Kindb. *nomen nudum*  
*Amphoridium lapponicum* (Hedw.) Schimp. = *Amphidium lapponicum*  
*Andreaea petrophila* Fühnr. = *A. rupestris*  
*Anodus donianus* (Sm.) B.S.G. = *Seligeria donniana*  
*Anomobryum filiforme* (Dicks.) Solms = *Pohlia filiformis*  
*Anomodon apiculatus* Sull. in Gray = *A. rugelii*  
*Anomodon obtusifolius* Bruch & Schimp. = *A. minor*  
*Anomodon platyphyllus* Kindb. = *A. minor*  
*Anomodon tristis* (Ces. ex De Not.) Sull. = *Haplohymenium triste*  
*Aphanorrhegma patens* (Hedw.) Lindb. = *Physcomitrella patens*  
*Arctoa blyttii* (B.S.G.) Loeske = *Kiaeria blyttii*  
*Atrichum crispum* var. *molle* (Holz.) Frye = *A. tenellum*  
*Atrichum macmillani* (Holz.) Grout = *A. angustatum*  
*Atrichum paraphyllum* Wareh. = *A. oerstedianum*  
*Atrichum undulatum* var. *altecristatum* Ren. & Card. = *A. altecristatum*  
*Barbula brevirostris* (Hook. & Grev.) Bruch in F. Müll. = *Aloina brevirostris*  
*Barbula caespitosa* Schwaegr. = *Tortella humilis*  
*Barbula inclinata* C. Müll. & Kindb. = *Tortella inclinata*  
*Barbula macrorrhyncha* Kindb. = *Aloina brevirostris*  
*Barbula mucronifolia* (Schwaegr.) Garov. = *Tortula mucronifolia*  
*Barbula recurvifolia* Schimp. = *B. reflexa*

- Barbula rigida* Schultz = *Aloina rigida* (Hedw.) Limpr.—Specimen from Ontario not seen  
*Barbula rigidula* (Hedw.) Milde = *Didymodon rigidulus*  
*Barbula ruralis* Hedw. = *Tortula ruralis*  
*Barbula subcarnifolia* C. Müll. & Kindb. in Mac. & Kindb. = *Desmatodon porteri*  
*Barbula subgracilis* var. *viridior* Kindb. in Mac. & Kindb. = *Didymodon rigidulus*  
*Barbula tortuosa* (Hedw.) Web. & Mohr = *Tortella tortuosa*  
*Bartramia fontana* (Hedw.) Turn. = *Philonotis fontana*  
*Bartramia oederi* Brid. = *Plagiopus oederiana*  
*Bartramia oederiana* Turn. = *Plagiopus oederiana*  
*Brachythecium acuminatum* ssp. *cyrtophyllum* (Kindb.) Kindb. in Mac. & Kindb. = *B. acuminatum*  
*Brachythecium acuminatum* var. *setosum* (Hedw.) Rau & Herv. = *B. acuminatum*  
*Brachythecium acutum* (Mitt.) Sull. = *B. salebrosum*  
*Brachythecium cavernosum* Kindb. = *B. rutabulum*  
*Brachythecium cyrtophyllum* Kindb. = *B. acuminatum*  
*Brachythecium flagellare* (Hedw.) Jenn. = *B. plumosum*  
*Brachythecium flexicaule* Ren. & Card. = *B. calcareum*  
*Brachythecium laetum* (Brid.) B.S.G. = *B. oxycladon*  
*Brachythecium populeum* var. *ovatum* Grout = *B. populeum*  
*Brachythecium spurio-acuminatum* C. Müll. & Kindb. in Mac. & Kindb. = *B. oxycladon*  
*Brachythecium starkei* (Brid.) B.S.G.—Excluded from Ontario  
*Brachythecium starkei* var. *curtum* (Lindb.) Warnst. = *B. curtum*  
*Brachythecium thedenii* Bruch & Schimp.—Excluded from Ontario  
*Brotherella delicatula* (James) Fleisch. = *B. recurvans*  
*Bryhnia graminicolor* var. *holzingeri* (Ren. & Card.) Grout = *B. graminicolor*  
*Bryum affine* Lindb. & H. Arnell = *B. creberrimum*  
*Bryum angustirete* Kindb. ex Mac. = *B. algovicum*  
*Bryum atwateriae* C. Müll. = *B. miniatum*  
*Bryum bimum* (Brid.) Turn. = *B. pseudotriquetrum*  
*Bryum capillare* ssp. *heteroneuron* C. Müll. & Kindb. in Mac. & Kindb. = *B. capillare*  
*Bryum capillare* var. *heteroneuron* C. Müll. & Kindb. in Mac. = *B. capillare*  
*Bryum cernuum* (Hedw.) B.S.G. = *B. uliginosum*  
*Bryum cuspidatum* (Bruch & Schimp.) Schimp. = *B. creberrimum*  
*Bryum duvalii* Voit ex Sturm = *B. weigelii*  
*Bryum hamicuspis* Kindb. = *B. creberrimum*  
*Bryum heteroneuron* (C. Müll. & Kindb.) Ren. & Card. = *B. capillare*  
*Bryum inclinatum* (Brid.) Bland. = *B. stenotrichum* C. Müll.—Specimen from Ontario not seen  
*Bryum intermedium* (Brid.) Bland.—Excluded from Ontario  
*Bryum neodamense* Itzigs. in C. Müll. = *B. pseudotriquetrum*  
*Bryum nutans* (Hedw.) Turn. = *Pohlia nutans*  
*Bryum nutans* var. *elongatum* Bruch & Schimp. = *Pohlia nutans* (?)  
*Bryum ontariense* Kindb. = *Rhodobryum ontariense*  
*Bryum ovatum* Jur. = *B. pseudotriquetrum*  
*Bryum pendulum* (Hornsch.) Schimp. = *B. algovicum*  
*Bryum pyriforme* Hedw. = *Physcomitrium pyriforme*  
*Bryum rauei* Aust. = *B. muehlenbeckii*  
*Bryum roseum* (Hedw.) Crom. = *Rhodobryum roseum* (Hedw.) Limpr.—Excluded from Ontario. Most collections thus named are *R. ontariense*.  
*Bryum synoico-caespitium* C. Müll. & Kindb. in Mac. = *B. caespitium*  
*Buxbaumia subcylindrica* Grout = *B. minakatae*



- Calliergon cuspidatum* (Hedw.) Kindb. = *Calliergonella cuspidata*  
*Calliergon schreberi* (Brid.) Mitt. = *Pleurozium schreberi*  
*Calliergon turgescens* (Schimp.) Kindb. = *Scorpidium turgescens*  
*Calliergonella schreberi* (Bruch & Schimp.) Grout = *Pleurozium schreberi*  
*Camptothecium nitens* (Schreb.) Schimp. = *Tomenthypnum nitens*  
*Campylium hispidulum* var. *sommerfeltii* (Myr.) Lindb. = *C. hispidulum*  
*Campylium sommerfeltii* (Myr.) J. Lange = *C. hispidulum*  
*Campylium stellatum* var. *protensum* (Brid.) Bryhn. = *C. stellatum*  
*Campylopus viridis* Sull. & Lesq. = *Dicranum viride*  
*Catharinea angustata* (Brid.) Brid. = *Atrichum angustatum*  
*Catharinea crispa* James = *Atrichum crispum*  
*Catharinea undulata* Hedw. = *Atrichum undulatum*  
*Chamberlainia acuminata* (Hedw.) Grout = *Brachythecium acuminatum*  
*Chamberlainia cyrtophylla* (Kindb.) Grout = *Brachythecium acuminatum*  
*Cinclidotus fontinaloides* (Hedw.) P. Beauv. — Excluded from Ontario (see Macoun 1900)  
*Cirriphyllum bosceii* (Schwaegr.) Grout = *Bryoandersonia illecebra*  
*Cirriphyllum illecebrum* (Hedw.) L. Koch = *Bryoandersonia illecebra*  
*Climacium americanum* ssp. *kindbergii* (Ren. & Card.) Kindb. = *C. americanum* var. *kindbergii*  
*Climacium kindbergii* (Ren. & Card.) Grout = *C. americanum* var. *kindbergii*  
*Conomitrium julianum* (Cand.) Mont. = *Fissidens fontanus*  
*Cratoneuron falcatum* (Brid.) Roth = *C. commutatum* var. *falcatum*  
*Cylindrothecium aciculare* (C. Müll. & Kindb.) Ren. & Card. = *Entodon cladorrhizans*  
*Cylindrothecium cladorrhizans* (Hedw.) Sull. = *Entodon cladorrhizans*  
*Cylindrothecium macounii* (C. Müll. & Kindb.) Ren. & Card. = *Hypnum pratense*  
*Cynodontium polycarpum* (Hedw.) Schimp. — Excluded from Ontario  
*Cynodontium subalpestre* Kindb. in Mac. = *C. alpestre*  
*Cynodontium tenellum* (B.S.G.) Limpr. = *C. alpestre*  
*Cynodontium virens* var. *wahlenbergii* (Brid.) Schimp. = *Oncophorus wahlenbergii*  
*Cynodontium wahlenbergii* (Brid.) C. Hartm. = *Oncophorus wahlenbergii*  
*Desmatodon heimii* var. *obtusifolius* (R. Br.) Kuc = *D. heimii* var. *arctica*  
*Dichelyma capillaceum* var. *elongatum* Kindb. in Mac. & Kindb. = *D. capillaceum*  
*Dicranella heteromalla* var. *orthocarpa* (Hedw.) Jaeg. & Sauerb. = *D. heteromalla*  
*Dicranum alatum* (Barnes) Card. & Thér. = *D. scoparium*  
*Dicranum bergeri* Bland. = *D. undulatum*  
*Dicranum canadense* Kindb. in Mac. = *D. scoparium*  
*Dicranum condensatum* Hedw. = *D. sabuletorum*  
*Dicranum consobrinum* Ren. & Card. = *D. scoparium*  
*Dicranum crispulum* C. Müll. & Kindb. = *D. fuscescens*  
*Dicranum fuscescens* var. *brevirostre* Kindb. in Mac. & Kindb. *nomen nudum*  
*Dicranum glaucum* Hedw. = *Leucobryum glaucum*  
*Dicranum longifolium* Ehrh. ex Hedw. = *Paraleucobryum longifolium*  
*Dicranum polycarpum* (Hedw.) Web. & Mohr = *Cynodontium polycarpum* (Hedw.) Schimp. — Excluded from Ontario  
*Dicranum rugosum* (Hoffm.) Brid. = *D. polysetum*  
*Dicranum rugosum* var. *rugulosum* Kindb. = *D. undulatum*  
*Dicranum schraderi* Wahlenb. = *D. undulatum*  
*Dicranum schreberi* Hedw. = *Dicranella schreberiana*  
*Dicranum scopariiforme* Kindb. = *D. scoparium*  
*Dicranum scoparium* var. *scopariiforme* (Kindb.) Kindb. = *D. scoparium*  
*Dicranum stenodictyon* Kindb. = *D. undulatum*

- Dicranum sulcatum* Kindb. = *D. fuscescens*  
*Dicranum undulatum* Ehrh. ex Web. & Mohr = *D. polysetum*  
*Dicranum undulatum* Turn. (sensu Kindberg) = *D. polysetum*  
*Dicranum virens* Hedw. = *Oncophorus virens*  
*Dicranum virens* var. *wahlenbergii* (Brid.) Hüb. = *Oncophorus wahlenbergii*  
*Didymodon cylindricus* (Brid.) B.S.G. = *Trichostomum tenuirostre*  
*Didymodon luridus* Hornsch. in Spreng. = *D. trifarius* (Hedw.) Röhl.—  
 Excluded from Ontario  
*Didymodon recurvirostris* (Hedw.) Jenn. = *Bryoerythrophyllum recurvirostrum*  
*Didymodon riparius* (Aust.) Kindb. = *Hyophila involuta*  
*Didymodon rubellus* B.S.G. = *Bryoerythrophyllum recurvirostrum*  
*Didymodon trachyneuron* Kindb. = *Trichostomum tenuirostre*  
*Didymodon trifarius* (Hedw.) Röhl.— Excluded from Ontario  
*Ditrichum glaucescens* (Hedw.) Hampe = *Saelania glaucescens*  
*Ditrichum tortile* (Schrad.) Brockm. = *D. pusillum* var. *tortile* (Schrad.) Hag.  
 — Specimen from Ontario not seen  
*Ditrichum tortile* ssp. *pusillum* Hedw. = *D. pusillum*  
*Drepanocladus aduncus* var. *capillifolius* (Warnst.) Wynne = *D. capillifolius*  
*Drepanocladus aduncus* var. *typicus* f. *capillifolius* Mönk. = *D. capillifolius*  
*Drepanocladus fluitans* var. *falcatus* (B.S.G.) Roth = *D. fluitans* var. *uncatus*  
 — Specimen from Ontario not seen  
*Drepanocladus intermedius* (Lindb. ex C. Hartm.) Warnst. = *D. revolvens*  
*Drepanocladus revolvens* var. *intermedius* (Lindb. ex C. Hartm.) Rich. &  
 Wallace = *D. revolvens*  
*Drepanocladus subpiligerus* Ren. *nomen nudum*  
*Drummondia canadensis* Kindb. = *D. prorepens*  
*Drummondia clavellata* Hook. in Drumm. = *D. prorepens*  
*Drummondia clavellata* var. *canadensis* Kindb. in Mac. & Kindb. = *D. prorepens*  
*Elodium paludosum* Aust. = *Helodium paludosum*  
*Encalypta contorta* Hopp. ex Lindb. = *E. streptocarpa*— Excluded from  
 Ontario  
*Encalypta laciniata* Lindb. = *E. ciliata*  
*Encalypta rhabdocarpa* Schwaegr. = *E. rhaptocarpa*  
*Encalypta streptocarpa* Hedw.— Excluded from Ontario. Most collections  
 thus named are *E. procera*.  
*Entodon acicularis* C. Müll. & Kindb. in Mac. & Kindb. = *E. cladorrhizans*  
*Entodon macounii* C. Müll. & Kindb. in Mac. & Kindb. = *Hypnum pratense*  
*Entodon repens* var. *orthocladus* (Kindb.) Grout = *Platygyrium repens*  
*Eurhynchium boscii* Jaeg. & Sauerb. = *Bryoandersonia illecebra*  
*Eurhynchium graminicolor* (Brid.) Par. = *Bryhnia graminicolor*  
*Eurhynchium praelongum* var. *stokesii* (Turn.) Hobk. = *Stokesiella praelonga*  
 var. *stokesii*  
*Eurhynchium pseudoserrulatum* Kindb. = *Brachythecium starkei* (Brid.)  
 B.S.G. according to Grout (1898); however, Ontario isosyntype is  
*B. rutabulum*  
*Eurhynchium rusciforme* (Neck.) Milde = *E. riparioides*  
*Eurhynchium scabridum* (Lindb.) Kindb. = *Bryhnia novae-angliae*  
*Eurhynchium serrulatum* (Hedw.) Kindb. = *Rhynchostegium serrulatum*  
*Eurhynchium serrulatum* ssp. *ericense* Kindb. = *Rhynchostegium serrulatum*  
*Eurhynchium stokesii* (Turn.) B.S.G. = *Stokesiella praelonga* var. *stokesii*  
*Eurhynchium strigosum* (Hoffm.) Bruch & Schimp. = *E. pulchellum*  
*Eurhynchium strigosum* var. *robustum* Röhl = *E. pulchellum*  
*Eurhynchium subscabridum* Kindb. = *Bryhnia graminicolor*  
*Eurhynchium substrigosum* Kindb. ex Mac. = *E. pulchellum*  
*Eurhynchium sullivantii* (Spruce) Jaeg. & Sauerb. = *Bryhnia graminicolor*  
*Fissidens adiantoides* var. *immarginatus* Lindb. ex Lesq. & James =  
*F. adiantoides*

*Fissidens adianthoides* var. *instatus* Kindb. *nomen nudum*  
*Fissidens debilis* Schwaegr. = *F. fontanus*  
*Fissidens decipiens* De Not. = *F. cristatus*  
*Fissidens incurvus* Starke ex Röhl. = *F. viridulus*  
*Fissidens julianus* (Mont.) Schimp. = *F. fontanus*  
*Fissidens julianus* var. *americanus* Kindb. = *F. fontanus*  
*Fissidens minutulus* Sull. = *F. viridulus*  
*Fissidens pusillus* (Wils.) Milde = *F. viridulus*  
*Fissidens tamarindifolius* (Turn.) Brid. = *F. viridulus*  
*Fontinalis biformis* Sull. in Gray = *F. sphagnifolia*  
*Fontinalis gigantea* Sull. in Sull. & Lesq. = *F. antipyretica* var. *gigantea*  
*Fontinalis lescurii* Sull. = *F. novae-angliae*  
*Fontinalis nitida* Lindb. = *F. duriaei*  
*Fontinalis novae-angliae* ssp. *involuta* Welch in Grout = *F. novae-angliae*  
*Fontinalis novae-angliae* var. *cymbifolia* (Aust.) Welch = *F. novae-angliae*  
*Forsstroemia nitida* Lindb. = *Neomacounia nitida*  
*Georgia cuspidata* Kindb. = *Tetraphis pellucida*  
*Georgia pellucida* (Hedw.) Rabenh. = *Tetraphis pellucida*  
*Grimmia apocarpa* var. *conferta* (Funck) Spreng. = *G. apocarpa*  
*Grimmia apocarpa* var. *dupretii* (Thér.) Sayre = *G. alpicola* var. *dupretii*  
*Grimmia apocarpa* var. *gracilis* (Schleich.) Web. & Mohr = *G. apocarpa* var. *stricta*  
*Grimmia apocarpa* var. *rivularis* (Brid.) Web. & Mohr = *G. alpicola* var. *rivularis*  
*Grimmia apocarpa* f. *canadensis* Loeske = *G. apocarpa*  
*Grimmia apocarpa* f. *epilosa* Warnst. = *G. apocarpa*  
*Grimmia conferta* Funck = *G. apocarpa*  
*Grimmia conferta* var. *compacta* Lesq. & James = *G. apocarpa*  
*Grimmia dupretii* Thér. = *G. alpicola* var. *dupretii*  
*Grimmia gracilis* Schleich. ex Schwaegr. = *G. apocarpa* var. *stricta*  
*Grimmia pennsylvanica* Schwaegr. ex Sull. & Lesq. = *G. pilifera*  
*Grimmia rivularis* Brid. = *G. alpicola* var. *rivularis*  
*Gymnostomum calcareum* Nees & Hornsch.—Excluded from Ontario. Most specimens thus named are *G. aeruginosum*.  
*Gymnostomum calcareum* var. *brevifolium* Schimp. = *G. calcareum*—Excluded from Ontario  
*Gymnostomum calcareum* var. *intermedium* Schimp.—Excluded from Ontario  
*Gymnostomum curvirostrum* (–is) (–e) Hedw. ex Brid. = *G. recurvirostrum*  
*Gymnostomum recurvirostrum* var. *scabrum* (Lindb.) Grout = *G. recurvirostrum* var. *latifolium*  
*Gymnostomum rupestre* (–is) Schleich. ex Schwaegr. = *G. aeruginosum*  
*Gymnostomum tenue* Schrad. ex Hedw. = *Gyroweisia tenuis*  
*Hedwigia albicans* Lindb. = *H. ciliata*  
*Helodium blandowii* var. *helodioides* (Ren. & Card. ex Röhl) Crum, Steere, & Anders. = *H. blandowii*  
*Helodium lanatum* (Brid.) Broth. = *H. blandowii*  
*Helodium pratense* W. Koch ex Moxley = *Hypnum pratense*  
*Helodium reptile* Michx. ex Moxley = *Hypnum pallescens*  
*Heterocladium squarrosulum* (Voit) Lindb. = *H. dimorphum*  
*Heterophyllum haldanianum* (Grev.) Kindb. = *Callicladium haldanianum*  
*Holmgrenia chrysea* (Schwaegr.) Lindb. = *Orthothecium chryseum*  
*Holmgrenia intricata* (C. J. Hartm.) Lindb. = *Orthothecium intricatum*  
*Homalia jamesii* Schimp. = *H. trichomanoides*  
*Homalia macounii* C. Müll. & Kindb. in Mac. & Kindb. = *H. trichomanoides*  
*Hygroamblystegium fluviatile* var. *orthocladum* (P. Beauv.) Crum, Steere, & Anders. = *H. tenax*

- Hygroamblystegium irriguum* (Wils.) Loeske = *H. tenax*  
*Hygroamblystegium irriguum* var. *spinifolium* (Schimp.) Grout = *H. tenax*  
*Hygroamblystegium irriguum* f. *marianopolitana* Dupret = *H. tenax*  
*Hygroamblystegium orthocladon* (P. Beauv.) Loeske = *H. tenax*  
*Hygroamblystegium tenax* var. *spinifolium* (Schimp.) Jenn. = *H. tenax*  
*Hygrohypnum dilatatum* (Wils. ex Schimp.) Loeske = *H. molle*  
*Hygrohypnum eugyrium* var. *mackayi* (Schimp.) Broth. = *H. eugyrium*  
*Hygrohypnum palustre* (Hedw.) Loeske = *H. luridum*  
*Hygrohypnum pseudomontanum* (Kindb. ex Mac. & Kindb.) Grout = *H. luridum*  
*Hylocomium proliferum* (Brid.) Lindb. = *H. splendens*  
*Hylocomium triquetrum* (Hedw.) B.S.G. = *Rhytidiadelphus triquetrus*  
*Hyophila riparia* (Aust.) Fleisch. = *H. involuta*  
*Hyophila tortula* (Schwaegr.) Hampe = *H. involuta*  
*Hypnum abietinum* Hedw. = *Abietinella abietina*  
*Hypnum acuminatum* (Hedw.) P. Beauv. = *Brachythecium acuminatum*  
*Hypnum acutum* Mitt. = *Brachythecium salebrosum*  
*Hypnum adnatum* Hedw. = *Homomallium adnatum*  
*Hypnum aduncum* Hedw. = *Drepanocladus aduncus*  
*Hypnum aduncum* var. *platyphyllum* (Kindb.) Par. = *Drepanocladus aduncus*  
*Hypnum alleghaniense* C. Müll. = *Thamnobryum alleghaniense*  
*Hypnum americanum* Mac. nomen nudum  
*Hypnum arcuatiforme* Kindb. in Mac. & Kindb. = *H. lindbergii*  
*Hypnum arcuatum* Lindb. = *H. lindbergii*  
*Hypnum blandowii* Web. & Mohr = *Helodium blandowii*  
*Hypnum bridelianum* Crum, Steere, & Anders. = *H. recurvatum*  
*Hypnum byssirameum* C. Müll. & Kindb. in Mac. & Kindb. = *Campyllum hispidulum*  
*Hypnum capillifolium* Warnst. = *Drepanocladus capillifolius*  
*Hypnum chrysophyllum* Brid. = *Campyllum chrysophyllum*  
*Hypnum compactum* (Hook.) C. Müll. = *Rhynchostegiella compacta*  
*Hypnum confervoides* Brid. = *Platydictya confervoides*  
*Hypnum conflatum* C. Müll. & Kindb. in Mac. & Kindb. = *Drepanocladus aduncus*  
*Hypnum cordifolium* Hedw. = *Calliergon cordifolium*  
*Hypnum cossonii* Schimp. = *Drepanocladus revolvens*  
*Hypnum crista-castrensis* Hedw. = *Ptilium crista-castrensis*  
*Hypnum cuspidatum* Hedw. = *Calliergonella cuspidata*  
*Hypnum delicatulum* Hedw. = *Thuidium delicatulum*  
*Hypnum denticulatum* Hedw. = *Plagiothecium denticulatum*  
*Hypnum deplanatum* Bruch & Schimp. ex Sull. = *Taxiphyllum deplanatum*  
*Hypnum depressulum* C. Müll. = *H. pallescens* var. *protuberans*  
*Hypnum dilatatum* Wils. ex Schimp. = *Hygrohypnum molle*  
*Hypnum eugyrium* (B.S.G.) Sull. & Lesq. = *Hygrohypnum eugyrium*  
*Hypnum exannulatum* B.S.G. = *Drepanocladus exannulatus*  
*Hypnum fastigiatum* Brid. = *H. recurvatum*  
*Hypnum filicinum* Hedw. = *Cratoneuron filicinum*  
*Hypnum flaccum* C. Müll. & Kindb. in Mac. & Kindb. = *Callicladium haldanianum*  
*Hypnum fluitans* Hedw. = *Drepanocladus fluitans*  
*Hypnum fluitans* var. *conflatum* C. Müll. & Kindb. = *Drepanocladus aduncus*  
*Hypnum fluviatile* Sw. ex Hedw. = *Hygroamblystegium fluviatile*  
*Hypnum giganteum* Schimp. = *Calliergon giganteum*  
*Hypnum gracile* Bruch & Schimp. in Hook. = *Haplocladium microphyllum*  
*Hypnum haldanianum* Grev. = *Callicladium haldanianum*  
*Hypnum hamulosiforme* Kindb. nomen nudum  
*Hypnum hians* Hedw. = *Eurhynchium hians*

*Hypnum hispidulum* Brid. = *Campylium hispidulum*  
*Hypnum kneiffii* (B.S.G.) Schimp. ex Wils. = *Drepanocladus aduncus* var. *kneiffii*  
*Hypnum kneiffii* var. *laxum* Kindb. in Mac. & Kindb. *nomen nudum*  
*Hypnum kneiffii* var. *platyphyllum* Kindb. in Mac. & Kindb. = *Drepanocladus aduncus*  
*Hypnum kneiffii* var. *rectifolium* Kindb. in Mac. & Kindb. *nomen nudum*  
*Hypnum laetum* Brid. = *Brachythecium oxycladon*  
*Hypnum minutulum* Hedw. = *Thuidium minutulum*  
*Hypnum molluscum* Hedw. = *Ctenidium molluscum*  
*Hypnum nitidulum* Wahlenb. = *Isopterygium pulchellum*  
*Hypnum nitens* Hedw. = *Tomenthypnum nitens*  
*Hypnum novae-angliae* Sull. & Lesq. = *Bryhnia novae-angliae*  
*Hypnum oakesii* Sull. in Gray = *Hylocomium pyrenaicum*  
*Hypnum ochraceum* Turn. ex Wils. = *Hygrohypnum ochraceum*  
*Hypnum palustre* Brid. = *Hygrohypnum luridum*  
*Hypnum passaicense* (Aust.) Lesq. & James = *Isopterygium pulchellum*  
*Hypnum patientiae* Lindb. = *H. lindbergii*  
*Hypnum patientiae* var. *elatum* (Schimp.) Jaeg. & Sauerb. = *H. lindbergii*  
*Hypnum perichaetiale* B.S.G. = *H. pallescens*  
*Hypnum plumosum* Hedw. = *Brachythecium plumosum*  
*Hypnum polygamum* (B.S.G.) Wils. = *Campylium polygamum*  
*Hypnum populeum* Hedw. = *Brachythecium populeum*  
*Hypnum protuberans* Brid. = *H. pallescens* var. *protuberans*  
*Hypnum pseudodrepanium* C. Müll. & Kindb. in Mac. & Kindb. = *H. lindbergii*  
*Hypnum pseudofastigiatum* C. Müll. & Kindb. in Mac. & Kindb. = *H. cupressiforme*  
*Hypnum pseudopratenae* Kindb. in Mac. & Kindb. = *H. pratense*  
*Hypnum recognitum* Hedw. = *Thuidium recognitum*  
*Hypnum recurvans* (Michx.) Schwaegr. = *Brotherella recurvans*  
*Hypnum renaudii* Kindb. in Mac. & Kindb. = *H. lindbergii*  
*Hypnum reptile* Michx. = *H. pallescens*  
*Hypnum revolvens* Sw. = *Drepanocladus revolvens*  
*Hypnum richardsonii* (Mitt.) Lesq. & James = *Calliergon richardsonii*  
*Hypnum riparium* Hedw. = *Leptodictyum riparium*  
*Hypnum rivulare* (B.S.G.) Bruch in Wils. = *Brachythecium rivulare*  
*Hypnum rugosum* Hedw. = *Rhytidium rugosum*  
*Hypnum rusciforme* Weiss ex Brid. = *Eurhynchium riparioides*  
*Hypnum rutabulum* Hedw. = *Brachythecium rutabulum*  
*Hypnum salebrosum* Web. & Mohr = *Brachythecium salebrosum*  
*Hypnum schreberi* Brid. = *Pleurozium schreberi*  
*Hypnum scitum* P. Beauv. = *Rauaiella scita*  
*Hypnum scorpioides* Hedw. = *Scorpidium scorpioides*  
*Hypnum sendtneri* Schimp. = *Drepanocladus sendtneri*  
*Hypnum serpens* Hedw. = *Amblystegium serpens*  
*Hypnum serrulatum* Hedw. = *Rhynchostegium serrulatum*  
*Hypnum sommerfeltii* Myr. = *Campylium hispidulum*  
*Hypnum splendens* Hedw. = *Hylocomium splendens*  
*Hypnum starkei* Brid. = *Brachythecium starkei* (Brid.) B.S.G.—Excluded from Ontario  
*Hypnum stellatum* Schreb. ex Hedw. = *Campylium stellatum*  
*Hypnum stellatum* var. *protensum* (Brid.) Röhl. = *Campylium stellatum*  
*Hypnum stramineum* Dicks. ex Brid. = *Calliergon stramineum*  
*Hypnum strigosum* Hoffm. = *Eurhynchium pulchellum*  
*Hypnum subflaccum* C. Müll. & Kindb. in Mac. & Kindb. = *H. pratense*  
*Hypnum subsecundum* Kindb. = *Campylium chrysophyllum*

- Hypnum subtile* (Hedw.) Dicks. = *Platydictya subtile*  
*Hypnum sullivantiae* Schimp. ex Sull. = *Plagiothecium cavifolium*  
*Hypnum sylvaticum* Brid. = *Plagiothecium sylvaticum*—Excluded from Ontario  
*Hypnum trifarium* Web. & Mohr = *Calliergon trifarium*  
*Hypnum triquetrum* Hedw. = *Rhytidiadelphus triquetrus*  
*Hypnum turfaceum* Lindb. = *Herzogiella turfacea*  
*Hypnum turgescens* T. Jens. = *Scorpidium turgescens*  
*Hypnum uncinatum* Hedw. = *Drepanocladus uncinatus*  
*Hypnum unicostatum* C. Müll. & Kindb. in Mac. & Kindb. = *Campylium chrysophyllum*  
*Hypnum varium* (Hedw.) P. Beauv. = *Amblystegium varium*  
*Hypnum vernicosum* Lindb. ex C. Hartm. = *Drepanocladus vernicosus*  
*Hypnum zuratzkae* Mac. nomen nudum  
*Isopterygium borrierianum* (C. Müll.) Lindb. = *I. elegans*  
*Isopterygium muellerianum* (Schimp.) Jaeg. & Sauerb. = *Isopterygiopsis muelleriana*  
*Isopterygium striatellum* (Brid.) Loeske = *Herzogiella striatella*  
*Isopterygium subfalcatum* (Aust.) Jaeg. & Sauerb. = *I. distichaceum*  
*Isopterygium turfaceum* (Lindb.) Lindb. = *Herzogiella turfacea*  
*Leptodictyum trichopodium* var. *curvipes* (B.S.G.) Broth.—Excluded from Ontario  
*Leptodon nitidus* Lindb. = *Neomacounia nitida*  
*Leptodon trichomitrium* (Hedw.) Mohr = *Forsstroemia trichomitria*  
*Leptodontium canadense* Kindb. in Mac. & Kindb. = *Hyophila involuta*  
*Leptotrichum glaucescens* (Hedw.) Hampe = *Saelania glaucescens*  
*Leptotrichum pallidum* (Hedw.) Hampe in C. Müll. = *Ditrichum pallidum*  
*Leptotrichum tortile* (Schrad.) Hampe in C. Müll. = *Ditrichum pusillum* var. *tortile* (Schrad.) Hag.—Specimen from Ontario not seen  
*Leskea cyrtophylla* Kindb. in Mac. & Kindb. = *Pseudoleskeella tectorum*  
*Leskea intermedia* Best in Mac. nomen nudum  
*Leskea nervosa* (Brid.) Myr. = *Leskeella nervosa*  
*Leskea tectorum* (Funck ex Brid.) Lindb. = *Pseudoleskeella tectorum*  
*Leskea williamsii* Best = *Pseudoleskeella williamsii*  
*Leskea wollei* Aust. = *Pseudoleskeella tectorum*  
*Leucobryum vulgare* Hampe = *L. glaucum*  
*Leucodon sciuroides* (Hedw.) Schwaegr.—Excluded from Ontario. Most collections thus named are *L. brachypus* var. *andrewsianus*  
*Lindbergia brachyptera* var. *austinii* (Sull.) Grout = *L. brachyptera*  
*Loeskeobryum brevirostre* (Brid.) Fleisch. = *Hylocomium brevirostre*  
*Meesia trichodes* Spruce = *M. uliginosa*  
*Meesia trifaria* Crum, Steere, & Anders. = *M. triquetra*  
*Meesia tristicha* B.S.G. = *M. triquetra*  
*Mielichhoferia mielichhoferiana* Loeske = *M. mielichhoferi*  
*Mniobryum albicans* (Wahlenb.) Limpr. = *Pohlia wahlenbergii*  
*Mnium affine* Bland. ex Funck = *Plagiomnium affine* (Funck) Kop.—Excluded from Ontario. Most collections thus named are either *P. ciliare* or *P. ellipticum*  
*Mnium affine* var. *ciliare* C. Müll. = *Plagiomnium ciliare*  
*Mnium affine* var. *rugicum* (Laur.) B.S.G. = *Plagiomnium ellipticum*  
*Mnium ciliare* (C. Müll.) Schimp. = *Plagiomnium ciliare*  
*Mnium cinclidioides* Hüb. = *Pseudobryum cinclidioides*  
*Mnium cuspidatum* Hedw. = *Plagiomnium cuspidatum*  
*Mnium drummondii* Bruch & Schimp. = *Plagiomnium drummondii*  
*Mnium macrociliare* C. Müll. & Kindb. in Mac. & Kindb. = *Plagiomnium ciliare*  
*Mnium medium* B.S.G. = *Plagiomnium medium*

- Mnium medium* ssp. *boreale* Kindb. = *Plagiomnium medium* ssp. *curvatulum* (Lindb.) Kop.—Specimen from Ontario not seen
- Mnium niagarae* Kindb. in Mac. & Kindb. = *M. marginatum*
- Mnium orthorrhynchum* Brid. = *M. thomsonii*
- Mnium orthorrhynchum* var. *tenellum* Bruch & Schimp. = *M. lycopodioides* ssp. *inclinatum* (Lindb.) Wijk & Marg.—Specimen from Ontario not seen
- Mnium pseudopunctatum* Bruch & Schimp. = *Rhizomnium pseudopunctatum*
- Mnium punctatum* Hedw. = *Rhizomnium punctatum*
- Mnium punctatum* var. *elatum* Schimp. = *Rhizomnium magnifolium*. Most specimens thus named, however, are *Rhizomnium appalachianum*.
- Mnium riparium* Mitt. = *M. lycopodioides*
- Mnium rostratum* Schrad. = *Plagiomnium rostratum*
- Mnium rugicum* Laur. = *Plagiomnium ellipticum*
- Mnium seligeri* Jur. in Milde = *Plagiomnium elatum* (B.S.G.) Kop.—Excluded from Ontario
- Mnium serratum* Schrad. ex Brid. = *M. marginatum*
- Mnium subglobosum* B.S.G. = *Rhizomnium pseudopunctatum*
- Myurella careyana* Sull. = *M. sibirica*
- Myurella gracilis* Lindb. = *M. sibirica*
- Neckera oligocarpa* Bruch = *N. pennata* var. *tenera*
- Neckera pennata* var. *oligocarpa* (Bruch) Grout = *N. pennata* var. *tenera*
- Omalia trichomanoides* (Brid.) B.S.G. = *Homalia trichomanoides*
- Oncophorus gracilescens* (Web. & Mohr) Lindb. = *Cynodontium gracilescens* (Web. & Mohr) Schimp.—Excluded from Ontario
- Oncophorus polycarpus* (Hedw.) Brid. = *Cynodontium polycarpum* (Hedw.) Schimp.—Excluded from Ontario
- Oncophorus polycarpus* var. *strumiferus* (De Not.) Grout = *Cynodontium strumiferum*
- Oncophorus tenellus* (B.S.G.) Williams = *Cynodontium alpestre*
- Oreoweisia serrulata* (Funck) De Not.—Excluded from Ontario. Most collections thus named are *Dichodontium pellucidum*
- Orthodicranum flagellare* (Hedw.) Loeske = *Dicranum flagellare*
- Orthotrichum brachytrichum* Schimp. ex Lesq. & James = *O. pumilum*
- Orthotrichum canadense* Bruch & Schimp. = *O. anomalum*
- Orthotrichum connectens* Kindb. ex Mac. = *Ulota crispa*
- Orthotrichum cupulatum* var. *nudum* (Dicks.) Braithw. = *O. cupulatum* var. *riparium* Hüb.—Excluded from Ontario
- Orthotrichum hutchinsiae* Sm. = *Ulota hutchinsiae*
- Orthotrichum ludwigii* Brid. = *Ulota coarctata*
- Orthotrichum microblepharum* f. *rubrum* Grout = *O. sordidum*
- Orthotrichum nudum* Dicks.—Excluded from Ontario. Collections thus named are probably *O. cupulatum*.
- Orthotrichum nudum* var. *rudolphianum* (Lehm.) Husn. = *O. cupulatum*
- Orthotrichum pallens* Bruch ex Brid.—Excluded from Ontario
- Orthotrichum porteri* Sull. & Lesq. ex Aust. = *O. strangulatum*
- Orthotrichum psilothecium* C. Müll. & Kindb. in Mac. & Kindb. = *O. speciosum* var. *elegans*
- Orthotrichum rogeri* Brid.—Excluded from Ontario
- Orthotrichum schimperi* Hamm. = *O. pumilum*
- Oxyrrhynchium riparioides* (Hedw.) Jenn. = *Eurhynchium riparioides*
- Phascum cuspidatum* var. *americanum* Ren. & Card. ex Card. & Thér. = *P. cuspidatum*
- Philonotis caespitosa* Jur. = *P. fontana* var. *caespitosa*
- Physcomitrium acuminatum* B.S.G. = *P. eurystomum* Sendtn. f. *acuminatum* Loeske—Excluded from Ontario
- Physcomitrium platyphyllum* Kindb. in Mac. & Kindb. = *P. pyriforme*
- Physcomitrium strangulatum* Kindb. = *P. pyriforme*

- Physcomitrium turbinatum* (Michx.) Britt. = *P. pyriforme*  
*Plagiomnium rugicum* (Laur.) Kop. = *P. ellipticum*  
*Plagiothecium aciculari-pungens* C. Müll. & Kindb. in Mac. & Kindb. = *P. cavifolium*  
*Plagiothecium brevipungens* Kindb. in Mac. & Kindb. = *Callicladium haldanianum*  
*Plagiothecium decursivifolium* Kindb. in Mac. & Kindb. = *P. laetum*  
*Plagiothecium denticulatum* var. *laetum* (B.S.G.) Lindb. = *P. laetum*  
*Plagiothecium deplanatum* (Bruch & Schimp. ex Sull.) Spruce = *Taxiphyllum deplanatum*  
*Plagiothecium elegans* (Brid.) Schimp. = *Isopterygium elegans*  
*Plagiothecium membranosum* Kindb. in Mac. & Kindb. = *Hypnum* sp.  
*Plagiothecium muehlenbeckii* B.S.G. = *Herzogiella striatella*  
*Plagiothecium muellerianum* Schimp. = *Isopterygiopsis muelleriana*  
*Plagiothecium passaicense* Aust. = *Isopterygium pulchellum*  
*Plagiothecium pulchellum* (Hedw.) B.S.G. = *Isopterygium pulchellum*  
*Plagiothecium pulchellum* var. *nitidulum* (Wahlenb.) Rau & Herv. = *Isopterygium pulchellum*  
*Plagiothecium roeseanum* B.S.G. = *P. cavifolium*  
*Plagiothecium ruthae* Limpr. = *P. denticulatum*  
*Plagiothecium striatellum* (Brid.) Lindb. = *Herzogiella striatella*  
*Plagiothecium subfalcatum* Aust. = *Isopterygium distichaceum*  
*Plagiothecium sullivantiae* (Sull.) Schimp. ex Jaeg. & Sauerb. = *P. cavifolium*  
*Plagiothecium sylvaticum* (Brid.) B.S.G. — Excluded from Ontario  
*Plagiothecium sylvaticum* var. *roeseanum* (B.S.G.) Lindb. = *P. cavifolium*  
*Plagiothecium turfaceum* (Lindb.) Lindb. = *Herzogiella turfacea*  
*Platygyrium repens* var. *orthocladus* Kindb. = *P. repens*  
*Pogonatum brevicaulis* P. Beauv. = *P. pensilvanicum*  
*Pohlia acuminata* Hoppe & Hornsch. = *P. elongata*  
*Pohlia albicans* Lindb. = *P. wahlenbergii*  
*Pohlia annotina* var. *loeskei* Crum, Steere, & Anders. = *P. annotina* var. *decipiens*  
*Pohlia delicatula* (Hedw.) Grout = *P. carnea*  
*Polytrichum affine* Funck = *P. strictum*  
*Polytrichum canadense* Kindb. = *P. commune*  
*Polytrichum commune* var. *canadense* Kindb. in Mac. & Kindb. = *P. commune*  
*Polytrichum formosum* var. *aurantiacum* (Hoppe ex Funck) C.J. Hartm. = *P. longisetum*  
*Polytrichum gracile* Sm. = *P. longisetum*  
*Polytrichum juniperinum* var. *alpestre* B.S.G. = *P. strictum*  
*Polytrichum juniperinum* var. *gracilius* Wahlenb. = *P. strictum*  
*Porotrichum alleghaniense* (C. Müll.) Grout = *Thamnobryum alleghaniense*  
*Pottia heimii* var. *arctica* Lindb. = *Desmatodon heimii* var. *arctica*  
*Pottia heimii* var. *obtusifolia* (R. Br.) Hag. = *Desmatodon heimii* var. *arctica*  
*Pottia intermedia* (Turn.) Fühnr. = *P. truncata*  
*Pottia truncata* var. *major* (Web. & Mohr) B.S.G. = *P. truncata*  
*Pottia truncatula* Warnst. = *P. truncata*  
*Pterogonium brachypterum* Mitt. = *Lindbergia brachyptera*  
*Pylaisia intricata* (Hedw.) Schimp. = *Pylaisiella intricata*  
*Pylaisia filari-acuminata* C. Müll. & Kindb. in Mac. = *Pylaisiella polyantha*  
*Pylaisia ontariensis* C. Müll. & Kindb. in Mac. & Kindb. = *Pylaisiella polyantha*  
*Pylaisia polyantha* B.S.G. = *Pylaisiella polyantha*  
*Pylaisia polyantha* var. *pseudoplatygyria* (Kindb. in Mac. & Kindb.) Grout = *Pylaisiella polyantha*  
*Pylaisia pseudoplatygyrium* Kindb. in Mac. & Kindb. = *Pylaisiella polyantha*



- Pylaisia schimperi* Card. = *Pylaisiella selwynii*  
*Pylaisia selwynii* Kindb. = *Pylaisiella selwynii*  
*Pylaisia subdenticulata* B.S.G. = *Pylaisiella polyantha*  
*Pylaisia velutina* B.S.G. = *Pylaisiella intricata*  
*Pylaisiella polyantha* var. *pseudoplatygyria* (Kindb.) Grout = *P. polyantha*  
*Rauia scita* (P. Beauv.) Aust. = *Rauiella scita*  
*Rhabdoweisia denticulata* (Brid.) B.S.G. = *R. crispata*  
*Rhacomitrium heterostichum* var. *ramulosum* (Lindb.) G. Jones =  
*R. heterostichum* var. *microcarpon*  
*Rhacomitrium microcarpon* (Hedw.) Brid. = *R. heterostichum* var. *microcarpon*  
*Rhacomitrium patens* (Hedw.) Hüb. — Excluded from Ontario. Reported by  
Soper and Maycock (1963:189), but voucher specimen in CANM is  
*Grimmia* sp.  
*Rhaphidostegium laxepatulum* (Lesq. & James) Ren. & Card. = *Brotherella*  
*recurvans*  
*Rhaphidostegium recurvans* (Michx.) Jaeg. & Sauerb. = *Brotherella recurvans*  
*Rhaphidostegium subadnatum* C. Müll. & Kindb. in Mac. & Kindb. = *Hypnum*  
*pallenscens*  
*Rhaphidostegium whitei* Kindb. = *Brotherella recurvans*  
*Rhizomnium perssonii* Kop. = *R. magnifolium*  
*Rhodobryum roseum* (Hedw.) Limpr. — Excluded from Ontario. Most  
collections thus named are *R. ontariense*.  
*Rhynchostegium deplanatum* (Bruch & Schimp. ex Sull.) Kindb. in Mac. &  
Kindb. = *Taxiphyllum deplanatum*  
*Rhynchostegium pseudo-serrulatum* (Kindb.) Kindb. = *Brachythecium*  
*starkei* (Brid.) B.S.G. — Excluded from Ontario  
*Rhynchostegium rusciforme* B.S.G. = *Eurhynchium riparioides*  
*Rhytidadelphus squarrosus* (Hedw.) Warnst. — Excluded from Ontario. Most  
collections thus named are *R. subpinnatus*.  
*Schistidium agassizii* Sull. & Lesq. ex Sull. = *Grimmia agassizii*  
*Schistostega osmundacea* Mohr = *S. pennata*  
*Seligeria donnii* Lindb. = *S. donniana*  
*Sematophyllum recurvans* (Rich.) Britt. = *Brotherella recurvans*  
*Sharpiella striatella* (Brid.) Iwats. = *Herzogiella striatella*  
*Sharpiella turfacea* (Lindb.) Iwats. = *Herzogiella turfacea*  
*Sphagnum acutifolium* Schrad. = *S. nemoreum*  
*Sphagnum angustifolium* (Russ.) C. Jens. = *S. fallax* var. *angustifolium*  
*Sphagnum apiculatum* H. Lindb. in Bauer = *S. fallax*  
*Sphagnum capillaceum* (Weiss) Schrank = *S. nemoreum*  
*Sphagnum capillaceum* var. *tenellum* (Schimp.) Andr. = *S. rubellum*  
*Sphagnum capillifolium* (Ehrh.) Hedw. = *S. nemoreum*  
*Sphagnum cymbifolium* (Ehrh.) Hedw. = *S. palustre*  
*Sphagnum cymbifolium* var. *laeve* Warnst. = *S. palustre*  
*Sphagnum dusenii* C. Jens. ex Russ. = *S. majus*  
*Sphagnum intermedium* Hoffm. = *S. nemoreum*  
*Sphagnum jensenii* H. Lindb. = *S. annulatum* var. *porosum*  
*Sphagnum jensenii* var. *annulatum* (H. Lindb. ex Warnst.) Warnst. =  
*S. annulatum* H. Lindb. ex Warnst. — Specimen from Ontario not seen  
*Sphagnum papillosum* var. *intermedium* Warnst. = *S. centrale*  
*Sphagnum plumulosum* Röhl = *S. subnitens*  
*Sphagnum recurvum* P. Beauv. — Excluded from Ontario. Most collections  
thus named are *S. fallax*.  
*Sphagnum recurvum* var. *mucronatum* (Russ.) Warnst. = *S. fallax*  
*Sphagnum recurvum* var. *parvifolium* Sendtn. ex Warnst. = *S. fallax* var.  
*angustifolium*  
*Sphagnum recurvum* var. *pulchrum* (Lindb.) Warnst. = *S. pulchrum*  
*Sphagnum recurvum* var. *tenue* Klinggr. = *S. fallax* var. *angustifolium*

- Sphagnum robustum* (Russ.) Röll = *S. russowii*  
*Sphagnum squarrosum* var. *semisquarrosum* Russ. ex Warnst. = *S. squarrosum*  
*Sphagnum squarrosum* var. *speciosum* Russ. in Mac. & Kindb. *nomen nudum*  
*Sphagnum subbicolor* Hampe = *S. centrale*  
*Sphagnum tenellum* var. *rubellum* (Wils.) Klinggr. = *S. rubellum*  
*Sphagnum tenellum* var. *rubrum* Grav. ex Warnst. = *S. rubellum* var. *rubrum* (Grav.) Horr.—Specimen from Ontario not seen  
*Sphagnum teres* var. *squarrosulum* (Schimp.) Warnst. = *S. teres*  
*Sphagnum warnstorffianum* Du Rietz = *S. warnstorffii*  
*Sphagnum wulfianum* var. *macrocladum* Warnst. *nomen nudum*  
*Sphagnum wulfii* Girg. = *S. wulfianum*  
*Swartzia montana* Lindb. = *Distichium capillaceum*  
*Thamnium alleghaniense* (C. Müll.) Jaeg. & Sauerb. = *Thamnobryum alleghaniense*  
*Thamnium pseudoneckeroides* Kindb. = *Thamnobryum alleghaniense*  
*Thelia compacta* Kindb. = *T. hirtella*  
*Thuidium abietinum* (Hedw.) B.S.G. = *Abietinella abietina*  
*Thuidium blandowii* (Web. & Mohr) B.S.G. = *Helodium blandowii*  
*Thuidium gracile* B.S.G. = *Haplocladium microphyllum*  
*Thuidium lignicola* Kindb. = *Haplocladium microphyllum*  
*Thuidium microphyllum* (Hedw.) Best = *Haplocladium microphyllum*  
*Thuidium microphyllum* var. *lignicolum* (Kindb.) Best = *Haplocladium microphyllum*  
*Thuidium philibertii* Limpr. = *T. delicatulum* var. *radicans*  
*Thuidium pseudoabietinum* Kindb. = *Helodium blandowii*  
*Thuidium scitum* (P. Beauv.) Aust. = *Rauiella scita*  
*Thuidium tamariscinum* (Hedw.) B.S.G.—Excluded from Ontario  
*Timmia bavarica* Hessel. = *T. megapolitana* var. *bavarica*  
*Timmia megapolitana* f. *cucullata* (Rich.) Grout = *T. megapolitana*  
*Tortella caespitosa* (Schwaegr.) Limpr. = *T. humilis*  
*Tortula intermedia* (Brid.) Berk. = *T. ruralis* var. *crinita*  
*Trichostomum cylindricum* (Bruch) C. Müll. = *T. tenuirostre*  
*Trichostomum glaucescens* Hedw. = *Saelania glaucescens*  
*Trichostomum tophaceum* Brid. = *Didymodon tophaceus*  
*Trichostomum vaginans* Sull. = *Ditrichum lineare*  
*Ulotia americana* (P. Beauv.) Limpr. = *U. hutchinsiae*  
*Ulotia bruchii* Hornsch. ex Brid.—Excluded from Ontario  
*Ulotia cirrata* Grout = *U. curvifolia*  
*Ulotia connectens* (Kindb.) Kindb. = *U. crispa*  
*Ulotia crispa* var. *crispula* Hamm. = *U. crispa*  
*Ulotia crispa* var. *intermedia* (Schimp.) Card.—Excluded from Ontario  
*Ulotia intermedia* Schimp. = *U. crispa* var. *intermedia* (Schimp.) Card.—Excluded from Ontario  
*Ulotia ludwigii* (Brid.) Brid. = *U. coarctata*  
*Webera albicans* Schimp. = *Pohlia wahlenbergii*  
*Webera cruda* (Hedw.) Föhrn. = *Pohlia cruda*  
*Webera nutans* Hedw. = *Pohlia nutans*  
*Webera sessilis* Lindb. = *Diphyscium foliosum*  
*Weissia curvifolia* (Wahlenb.) Lindb. = *Ulotia curvifolia*  
*Weissia mühlenbergiana* (Sw.) Reese and Lemmon = *Astomum mühlenbergianum*  
*Weissia pusilla* Kindb. = *Gymnostomum calcareum* Nees and Hornsch.—Excluded from Ontario  
*Weissia viridula* Hedw. ex Brid. = *W. controversa*  
*Weissia wolfii* Lesq. & James = *W. controversa*

## Literature Cited

**Agassiz, L.**

(1850). Lake Superior: its physical character, vegetation, and animals, compared with those of other and similar regions. Gould, Kendall, and Lincoln, Boston. 428 pp.

**Anderson, L. E.**

(1971). Geographical relationships of the mosses of the southern Appalachian Mountains. Pages 101–15 in P. C. Holt, ed., The distributional history of the biota of the southern Appalachians. Vol. 2, Flora. Virginia Polytechnic Institute and State University (Research Division Monograph 2), Blacksburg.

**Anderson, L. E., and R. H. Zander**

(1973). The mosses of the southern Blue Ridge Province and their phytogeographic relationships. J. Elisha Mitchell Sci. Soc. 89(1–2): 15–60.

**Ando, H.**

(1973). Studies on the genus *Hypnum* Hedw., 2. J. Sci. Hiroshima Univ., ser. B, div. 2, Bot. 14(3): 165–207.

**Barnes, C. R.**

(1896). Analytic keys to the genera and species of North American mosses. Univ. Wis. Bull. (Sci. Ser.) 1(5): 157–368.

**Billings, B., Jr.**

(1858). A list of indigenous plants found growing in the neighbourhood of Prescott, C. W., under the nomenclature of Gray. Can. Nat. Geol. 3(1): 39–50.

**Britton, E. G.**

(1894). Contributions to American bryology, 5. Notes on the North American species of *Weissia* (*Ulota*). Bull. Torrey Bot. Club 21(2): 65–76.  
(1900). Distribution of the eastern species of *Mnium*. Bryologist 3(1): 4–6.

**Brotherus, V. F.**

(1924–25). Musci (Laubmoose). In A. Engler and K. Prantl, eds., Die natürlichen Pflanzenfamilien. Vol. 10 (1924); Vol. 11 (1925). 2nd ed. Engelmann, Leipzig.

**Crum, Howard A.**

(1966). Bryophytes of Owen Sound and the Bruce Peninsula, Ontario. Natl. Mus. Can. Bull. 216: 102–12.

**Crum, Howard A., W. C. Steere, and L. E. Anderson**

(1973). A new list of mosses of North America north of Mexico. Bryologist 76(1): 85–130.

**Crundwell, A. C., and Elsa Nyholm**

(1963). Two new European species of *Bryum*. Bot. Not. 116(1): 94–98.

(1964). The European species of the *Bryum erythrocarpum* complex. Trans. Br. Bryol. Soc. 4(4): 597–637.

**Falls, J. B., and J. H. Soper**

(1964). An outline of the vegetation and fauna of Ontario. Pages 21–36 in W. W. Judd and J. M. Speirs, eds., A naturalist's guide to Ontario. Published for Federation of Ontario Naturalists by University of Toronto Press, Toronto.

**Flowers, S.**

(1946). *Encalypta ciliata* var. *pilifera* n. var. Bryologist 49(2): 84.

**Graham, G. H.**

(1913). Mosses and liverworts. Pages 150–57 in J. H. Faull, ed., The natural history of the Toronto region, Ontario, Canada. Canadian Institute, Toronto.

**Grout, A. J.**

(1898). A revision of the North American Eurhynchia. Bull. Torrey Bot. Club 25(5): 255.  
(1928–34). Moss flora of North America, north of Mexico. Vol. 3. Published by the author, New York, N.Y., and Newfane, Vt. 268 pp.  
(1933–40). Moss flora of North America, north of Mexico. Vol. 2. Published by the author, Newfane, Vt. 273 pp.  
(1936–39). Moss flora of North America, north of Mexico. Vol. 1. Published by the author, Newfane, Vt. 253 pp.

**Ireland, R. R.**

(1974). *Neomacounia*, a new genus in the Neckeraceae (Musci) from Canada. Bryologist 77(3): 453–59.

**Isoviita, P.**

(1966). Studies on *Sphagnum* L. 1, Nomenclatural revision of the European taxa. Ann. Bot. Fenn. 3: 199–264.

**Iwatsuki, Z., and T. Koponen**

(1972). On the taxonomy and distribution of *Rhodobryum roseum* and its related species (Bryophyta). Acta Bot. Fenn. 96: 1–22.

**Karczmarz, K.**

(1971). A monograph of the genus *Calliergon* (Sull.) Kindb. Monogr. Bot. 34.

**Kindberg, N. C.**

- (1890). New Canadian mosses. *Ottawa Naturalist* 4: 61–65.  
 (1900). Additions to the North American and European bryology (moss-flora). *Ottawa Naturalist* 14(5): 77–88.  
 (1909). Note on Northamerican Bryineae. *Rev. Bryol.* 36(2): 42–44.  
 (1910). New contributions to Canadian bryology. *Ottawa Naturalist* 23(10): 180–91.

**Koponen, T.**

- (1968). Generic revision of Mniaceae Mitt. (Bryophyta). *Ann. Bot. Fenn.* 5: 117–51.  
 (1971). *Rhytidiadelphus japonicus* and *R. subpinnatus*. *Hikobia* 6(1–2): 18–35.  
 (1973). *Rhizomnium* (Mniaceae) in North America. *Ann. Bot. Fenn.* 10: 1–26.

**Lesquereux, L., and T. P. James**

- (1884). *Manual of the mosses of North America*. Cassino, Boston. 447 pp.

**Maass, W. S. G.**

- (1967). Studies on the taxonomy and distribution of *Sphagnum*. 4, *Sphagnum majus*, *Sphagnum annulatum*, *Sphagnum mendocinum* and *Sphagnum obtusum* in North America. *Nova Hedwigia Z. Kryptogamenkd.* 14(2–4): 187–214.

**Macoun, John**

- (1888). Bryological notes. *Bull. Torrey Bot. Club* 15(7): 185–86.  
 (1890). List of mosses collected in the neighbourhood of Ottawa. *Ottawa Naturalist* 3(4): 149–52.  
 (1897). The cryptogamic flora of Ottawa. *Ottawa Naturalist* 11(7): 129–40.  
 (1900). Note on *Cinclidotus fontinaloides*. *Bryologist* 3(3): 6.  
 (1902). Catalogue of Canadian plants. Pages 181–318 (Addendum to pt. 6) in pt. 7, Lichenes and Hepaticae. Geological Survey of Canada, Ottawa.  
 (1906). The cryptogamic flora of Ottawa. *Ottawa Naturalist* 20(9): 177–82.

**Macoun, John, and N. C. Kindberg**

- (1892). Catalogue of Canadian plants. Pt. 6, Musci. Geological Survey of Canada, Ottawa. 295 pp.

**Mitten, W.**

- (1865). The “Bryologia” of the survey of the 49th parallel of latitude. *J. Linn. Soc. Lond. Bot.* 8: 12–55.

**Moxley, E. A.**

- (1928). The moss flora of north Grey County and part of the Bruce Peninsula, Ontario. *Can. Field-Nat.* 42(8): 194–201.  
 (1929). Mosses of the Bruce Peninsula, Ontario. *Bryologist* 32(4): 84.  
 (1930). The hall carpet. *Bryologist* 33(2): 22–24.  
 (1932). The moss flora of north Grey County and part of the Bruce Peninsula. *Bryologist* 35(4–6): 61–70.  
 (1937). Bryological notes from Owen Sound and Bruce Peninsula. *Bryologist* 40(5): 89–90.

**Persson, H., and H. Sjörs**

- (1960). Some bryophytes from the Hudson Bay lowlands of Ontario. *Sven. Bot. Tidskr.* 54(1): 247–68.

**Scoggan, H. J.**

- (1966). The flora of Canada. Pages 35–61 in *Canada Year Book 1966*. Dominion Bureau of Statistics, Ottawa.

**Soper, J. H., and P. F. Maycock**

- (1963). A community of arctic-alpine plants on the east shore of Lake Superior. *Can. J. Bot.* 41(2): 183–98.

**Steere, W. C.**

- (1958). Bryophyta of arctic America. 7, A collection from the delta region of the Mackenzie River. *Bryologist* 61(3): 182–90.

**Sullivan, W. S.**

- (1856). The Musci and Hepaticae of the United States east of the Mississippi River. Pages 607–737 in A. Gray, *Manual of the botany of the northern United States*. 2nd ed. Putnam, New York.

**Tuomikoski, R.**

- (1949). Über die Kollektivart *Drepanocladus exannulatus* (Br. Eur.) Warnst. *Ann. Bot. Soc. Zool. Bot. Fenn.* “Vanamo” 23(1): 1–44.

**Tuomikoski, R., T. Koponen, and T. Ahti**

- (1973). The mosses of the island of Newfoundland. *Ann. Bot. Fenn.* 10: 217–64.

**Warnstorf, C.**

- (1911). Sphagnales-Sphagnaceae (Sphagnologia universalis). In Vol. 51 of A. Engler, ed., *Das Pflanzenreich: Regni vegetabilis conspectus*. Engelmann, Leipzig. 546 pp.

**Watt, D. A.**

- (1869). Mosses new to Canada. *Can. Nat. & Quart. J. Sci., n.s.*, 4(3): 359–60.

**Welch, W. H.**

- (1960). A monograph of the Fontinalaceae. Nijhoff, The Hague. 357 pp.

## Literature Cited

**Wijk, R. van der, W. D. Margadant, and P. A. Florschütz**

(1959-69). Index Muscorum. Regnum Vegetabile 17 (1959); 26 (1962); 33 (1964); 48 (1967); 65 (1969).

**Williams, Claire**

(1968). New and additional moss records for Ontario. *Bryologist* 71(3): 282-84.

**Wynne, F. E.**

(1943). Range extensions of mosses in western North America. *Bryologist* 46(4): 149-55.

**Wynne, F. E., and W. C. Steere**

(1943). The bryophyte flora of the east coast of Hudson Bay. *Bryologist* 46(3): 73-87.





CALIF ACAD OF SCIENCES LIBRARY



3 1853 00050 6787